

Bird-Lore

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A Pet Kittiwake

By EDWARD R. WARREN, Colorado Springs, Colo.

With a Photograph by Alpheus H. Hyatt

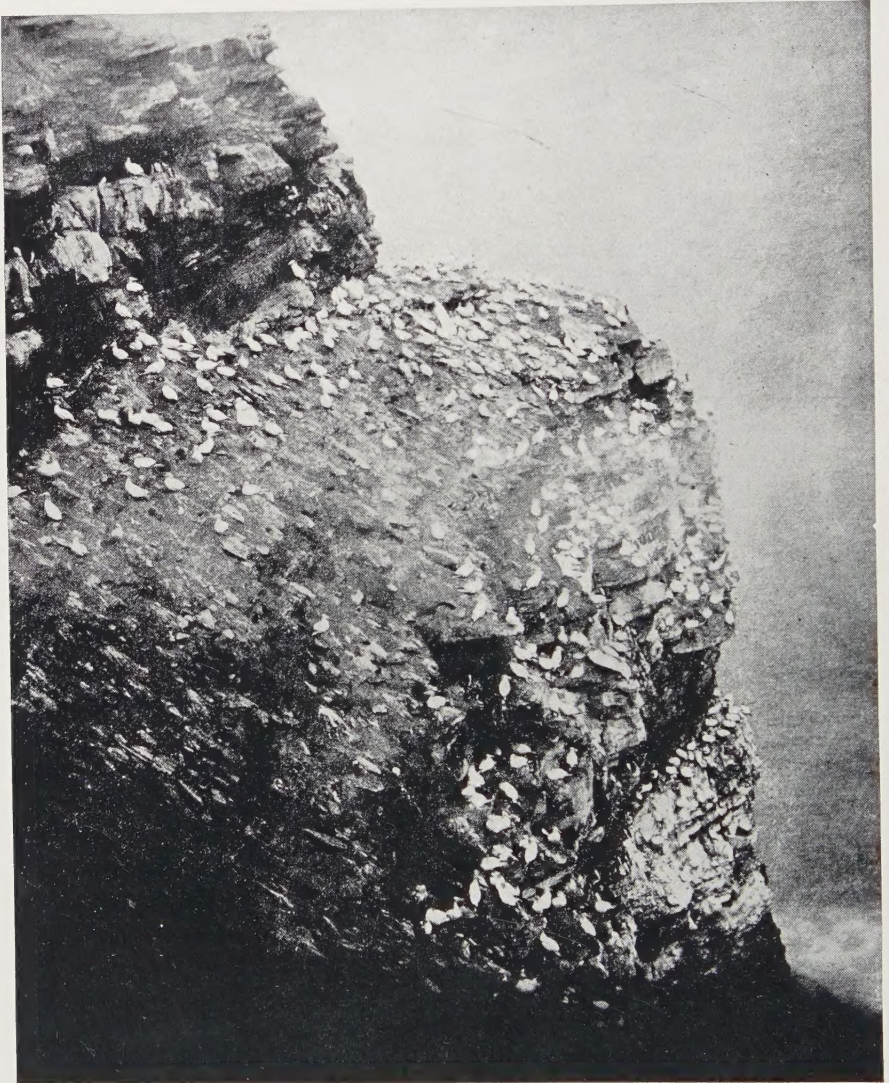
DURING the summer of 1881 I was a member of a party organized by Prof. Alpheus Hyatt, then Curator of the Boston Society of Natural History, to make a cruise for scientific purposes to the Gulf of St. Lawrence. We made the trip on his schooner-yacht 'Arethusa.' The party included in its personnel William Brewster, and I have always considered the several weeks' close association which I had with him as one of the greatest strokes of good fortune which has ever come my way. After the cruise I met him in person but two or three times, though I had some correspondence with him, but his fine character made a lasting impression upon me. Of the six who composed the scientific staff of the party, only two are now left, Dr. Samuel Henshaw, Director of the Museum of Comparative Zoölogy, and myself.

The last of June we were at the Magdalen Islands, and on July 3 went to Bird Rock, that noted resort of sea-birds. The sea was too rough for a landing on this day, however, and we were obliged to return to one of the Magdalens for the night. On the 4th, however, we were able to land on the Rock and see the wonderful assemblage of birds which nested there. They were everywhere about, on the ledges and nooks of its precipitous sides as well as on the top. There were Gannets, Kittiwakes, Puffins, two species of Murres, and Razor-billed Auks. They have greatly decreased in numbers since that time.

Prof. Hyatt had a camera with which one or more pictures of the birds were taken, very possibly the first photographs ever made of the birds on the Rock. When my readers learn that the weather was cloudy and foggy, the plates so slow that exposures of twenty seconds or more were necessary, they will understand that bird-photography was not easy. A picture taken on that day is reproduced herewith. Our stay on the Rock was cut short by a rising storm, and we were obliged to return to the 'Arethusa,' on which we set sail for Anticosti. We had a wild night driving close-hauled across the Gulf.

Among our acquisitions at Bird Rock were two young Kittiwake Gulls three to four days old. These were put in a pail on deck, and seemed quite at

home, feeding freely on fish, which we usually cut into pieces or strips for them. They would not drink, and pined rapidly, one dying on the second day. As an experiment, the survivor was placed in a basin of sea-water, and, to our great surprise, at once began to drink, thus quenching his thirst. After that he was given plenty of salt water but would never touch fresh water. Brewster comments on this drinking of salt water, saying that various theories had been advanced as to how sea-birds satisfy their thirst, but that no one had ventured



GANNETS AND OTHER SEA-BIRDS ON BIRD ROCK, GULF OF ST. LAWRENCE

Photograph by Prof. Alpheus Hyatt, July 4, 1881. Doubtless the first photograph ever taken of the birds on the Rock, and possibly the first photograph of birds made in America by a naturalist

to assert that they would drink salt water. It was one of my duties to look after 'Kitty,' and especially to provide food for him, fish being preferred, though in its absence fresh meat was not scorned. Often, when sailing over a smooth sea in pleasant weather, capelin, a smelt-like fish, could be dipped up. They obligingly swam near the surface, and with a dip-net always lying handy and someone on the lookout, were quite easily picked up. The bird appreciated them. One day, after giving it a couple six to eight inches long, when I could still see the tail of the last sticking up in the bird's throat, I offered it a third, which it immediately tried to take. I decided it would be better to wait a little and withdrew the fish. The digestive process was rapid and the tail was soon out of sight. When in harbor I always kept a line or two overboard to capture food for our baby. Sculpins seemed to be the usual catch. It is usually considered a joke on the fisherman to take these rather hideous fish, mostly head and mouth, but I got over all feeling as to that, and pulled in a sculpin with almost as much pleasure as if it had been a more attractive fish, knowing that I had use for it. There is not much meat on one, a strip along each side of the backbone being all it would supply, and that would disappear at a meal. Meals were rather frequent, I think, but I do not now remember how often the bird was fed.

Mr. Brewster, in a list of the birds observed on the cruise, has given a full account of the bird, and I have drawn freely on it to aid my own recollections. The bird grew finely, became very beautiful, and was able to fly by the end of four weeks, but never tried to escape. He was always gentle, permitting handling and caressing freely, and we all became very fond of him. I think we often used to allow him out on deck in fair weather, but we had so many storms that I fear he spent much time in close confinement. I think it stormed about half the time during the two months we were out, and even summer storms in the Gulf of St. Lawrence are not to be sneered at.

For a time we had a couple of young Black-backed Gulls. They were ugly, dirty, vicious creatures, and finally we turned them loose at Ellis Bay, Anticosti, and, as Brewster says, "the parting on both sides being apparently equally free from regrets." I am sure I was glad to see them go, for they were among my responsibilities and a nuisance to care for.

We took the Kittiwake with us to Annisquam, Mass., Prof. Hyatt's summer home and laboratory, which we reached about the middle of August. I returned to my own home immediately and lost sight of the bird. Mr. Brewster gives its subsequent history. After the return it was given full liberty and flew about Annisquam Harbor, always returning to spend the night in the pail in which we had kept it. Brewster saw it there August 25, and it disappeared a week later. Perhaps it wandered away; possibly it was wantonly shot. Brewster quotes the following interesting notes given him by Prof. Hyatt:

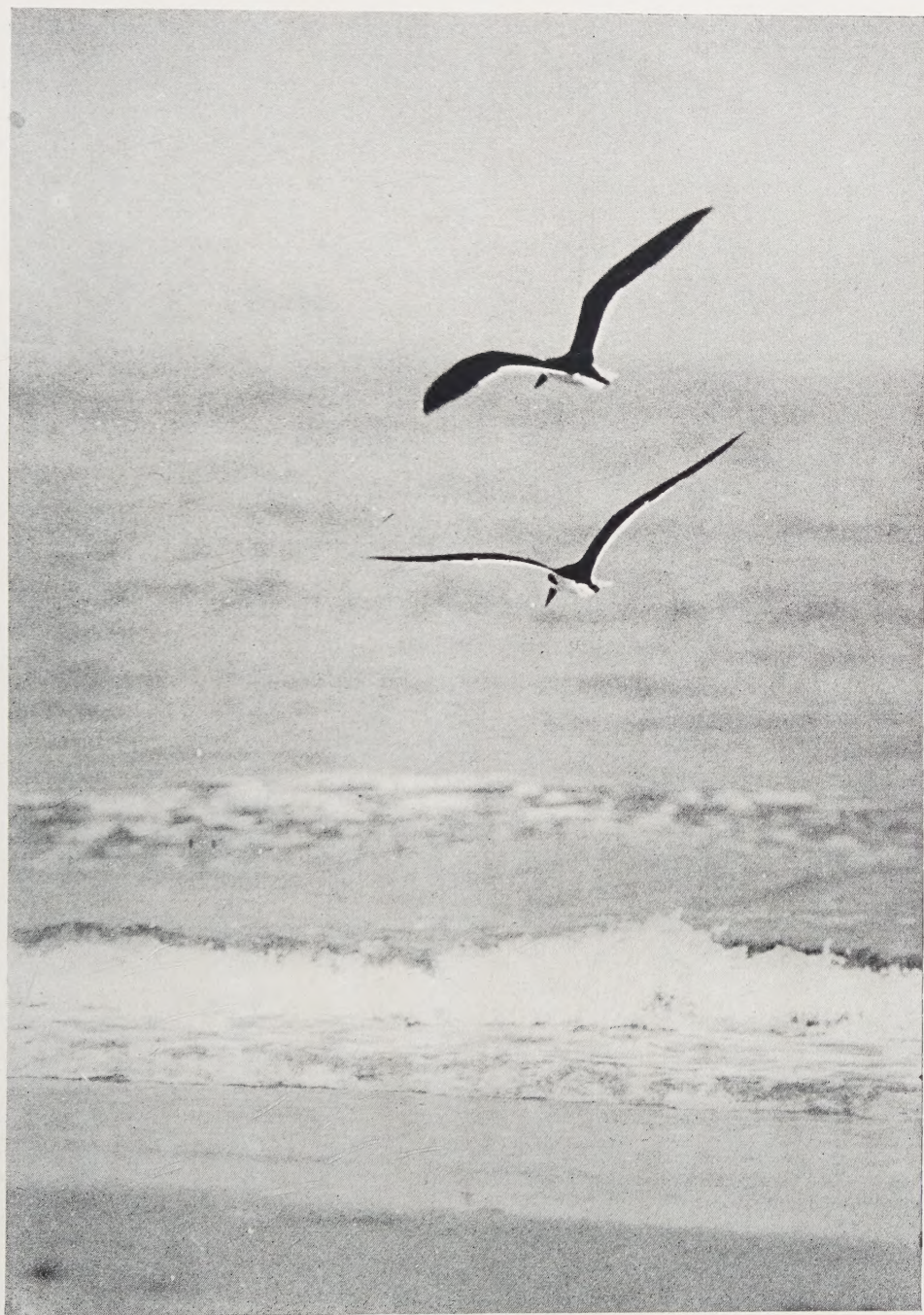
"He made no efforts toward prolonged flights until one day after our return to Annisquam I took him to the door and threw him gently from an elevation

of about ten feet. Instead of flying slowly to the ground, as I had anticipated, the bird sailed off a hundred feet at least, turned, and flew back over the house and through the trees, avoiding obstacles, and soaring with perfect ease and very swift motion, round and round the area of the house. Very soon, however, he began to approach very close to me and scream as if in distress. It was evident that he was tired and wished to alight, but did not know how to stop. Finally I succeeded, by suddenly throwing up my arms as he came toward me, in arresting him, and he literally tumbled against me and fell to the ground. His excitement was very great, and he would have started again very soon, of his own accord, if I had not held and quieted him. He was wild with delight. I started him again when rested, and precisely the same scene was reenacted; and he did not learn to alight by himself until after several flights. After this he flew, as Mr. Brewster has described, but on account of the danger from lawless gunners I was obliged finally to clip his wings. Not enough, as it proved, since he succeeded in flying across to some marshes opposite the house and never reappeared, probably having been shot."



THERE WERE 800 CLIFF SWALLOWS' NESTS ON THIS BARN

Photographed by Rasmus Christensen, Newark, Nebr.



THE SURF AT EBB TIDE—BLACK SKIMMERS SCOUTING FOR FOOD
Photographed by Henry R. Carey, Cape May County, N. J., July 9, 1925

Variation in the Song of the Meadowlark in Edgar County, Illinois

By JOHN STEIDL, B. A., Paris, Ill.

MANY writers have commented upon the variation in the song of the Eastern Meadowlark in different localities. There is also considerable local and individual variation. The author has attempted to determine the extent and nature of this variation in his own locality, 7 miles northwest of Paris, Ill., in Edgar County.

The country is almost level, but broken here and there by gentle swells. The locality is intensively cultivated and the chief crops are corn, oats, clover, wheat, and alfalfa. Some rye and soy beans are grown. Paris is said to be in the Wabash Valley.

One thousand consecutive and unselected songs were carefully observed and transcribed into very simple musical notation, showing only the relative pitch difference of the notes of the song and the phrasing of the song. The representation was kept as simple as possible because, although the bird has a range of about four notes, these notes are not always on the same pitch but differ too slightly to be represented in our system of musical notation. That is, the bird is frequently a little flat or sharp. The attempt to assign a time-valuation to each note was abandoned, as this varies infinitely and taxes the ear too greatly for accuracy.

Each song was written separately, and no check was made against previous songs until the collection was complete, after which classification was begun. This seemed necessary to avoid moulding the data to fit a preconceived opinion, as phrasing is sometimes indefinite enough to be a matter of opinion. Phrasing is accomplished by slurring certain notes of the song together and allowing others to stand alone in the song. In order that the study might represent as much individual variation as possible, the entire collection was made from the same spot within a few days' time.

The author is well aware that the factors of error which enter into any such study are personal ones, chief of which is the training and native sensitiveness of the ear. Such a criticism, however, is valid against any study of bird-song and is often made. The accuracy of even Audubon's ear has sometimes been questioned. In the present instance the author hopes that ten years' experience with band and orchestra as trumpeter and cellist, together with some acquaintance with other instruments and the theory of music, may have reduced this factor of error considerably.

The songs of the Meadowlark in Edgar County vary in the number of notes from one to eight. Ten-note songs have been credited to the bird but, in listening carefully to many thousands of songs, I have heard none longer than eight notes. Longer ones either do not occur in Edgar County or are excessively rare.

Even songs containing the same number of notes differ widely in their organization, due to the different position of the four possible pitch differences and the difference in phrasing. So great is this variation that with four possible pitch differences and a length of song not greater than eight notes, one hundred and twelve different songs were classified from the thousand recorded.

Writers on the Meadowlark usually represent the bird as singing a five-note song. In this study 435 songs were five-note songs, but there were 36 different songs represented in this total. It is true that the song most frequently heard was a five-note song, but it was heard only 105 times. Four- and six-note songs were frequent, being heard 192 and 279 times respectively.

One of the most interesting facts which came to light was that 32 of the 112 different songs, or 28½ per cent, occurred only once in the series. It is equally interesting that only 11 songs occurred more than twenty times each.

The number of variations heard with a given number of notes (i. e., equal length of song) did not steadily increase with the length of the song, as might have been expected, but was greatest in the five- and six-note songs.

The results of the study may best be seen in the following table:

Number of notes in the song	Number of songs	Number of variations
1	3	1
2	18	2
3	16	5
4	192	18
5	435	36
6	279	35
7	52	13
8	5	2
Totals	1,000	112

That the 112 different songs recorded represent a considerable amount of individual variation cannot be doubted, as they were all collected from the same spot within a few days' time.

The Meadowlark in this locality commonly ascends to a convenient fence-post, sings one song from three to a dozen times, and is off to feed again. Many, however, will sing two or more songs from the same perch, and I have seen one bird sing as many as ten different songs, consisting of four, five, six, and seven notes, from the same perch within a few minutes.

It will be observed that the bird in this locality has only a few songs that it sings with even relative frequency, but many that are sung infrequently. The question at once arises whether some of the noted variation in the song in different localities may not be due to a difference in the frequency of singing rather than to an absolute difference in the song.

No definite limiting factor in the bird's ability to make combinations of

notes within its range has been revealed by this study. However, slurring of groups of notes from a higher to a lower pitch is more common than the reverse.

A classification of the data according to the presence of cloudy and sunny weather revealed nothing significant so it is not presented here.

CONCLUSIONS

1. The song of the Meadowlark is exceedingly variable in Edgar County, Illinois.
2. The common song of the species here is a five-note song; it occupies, however, only 10.5 per cent of this series.
3. In a total of 1,000 songs recorded consecutively, unselected, and with classification deferred until the collection was complete, there were 112 distinct songs.
4. While the power of combination of notes within its range appears to have no definite limit, there are a few songs that are sung many times more frequently than others.



CASPIAN TERN

Photographed by Dr. Frank N. Wilson, Hat Island, Beaver Group, Mich., June, 1923

Nest-Stealing Tactics of the Starling

By GEORGE MIKSCH SUTTON, State Ornithologist, Harrisburg, Pa.

With a Drawing by the Author

THE Starling (*Sturnus vulgaris*) has occurred in the vicinity of my home at Bethany, Brooke County, W. Va., for the past five years, although flocks of them were reported near Wheeling, which is 17 miles to the southward, as early as 1918. During the past two years it has become startlingly abundant in the region, and during May of the present year, while I was at home, was everywhere in evidence.

On April 30, two pairs were observed entering cavities, and possibly feeding young, in a dead elm which stands on the bank of Buffalo Creek, 200 yards from our house. At the same time it was noted that Flickers were drilling a cavity not far from one of the Starling nests. No animosity between the two species was detected at this time.

On May 2, the Flickers ceased drilling their cavity. At about 11 A.M. on this date, a fifth Starling, assumed to be a male, appeared at the tree and, perching not far from the Flicker nest, set up insistent squealing cries as an accompaniment to nervous clickings of the bill and occasional waving of the wings. Single Starlings flying by roused his attention and caused him to increase his demonstrations. It is probable that these were female birds. On the morning of May 3 this male was joined by a mate. The two birds fed about the yard and flew back and forth from the lawn to the tree about every quarter of an hour. On the morning of May 5 there was evidently trouble between the new pair of Starlings and the Flickers, which by now may have had an egg or two in their nest. At about 9 o'clock excited cries from the Flickers drew my attention. A Starling was forcing an entrance into the Flicker's nest, and both Flickers were calling nervously, though not making any effort to strike or fly at the intruders. All morning the conflict continued. Early in the afternoon the battle subsided and finally the female Flicker slipped into her nest and the male flew to a nearby field. In a short time I heard loud, terrified cries of a Flicker, and turned my glasses on the elm tree just in time to see a Flicker and Starling, evidently clenched in battle, tumble headlong from the tree into the grass. Only the Flicker was screaming, so far as I could determine, but soon the nearby trees and bushes were alive with Bronzed Grackles, Red-winged Blackbirds, Yellow Warblers, Baltimore Orioles, Song Sparrows, Phœbes, and even a Crow, which congregated soon after the loud cries began.

I could not see the birds which were fighting, but the distressed cries of the Flicker continued to issue from the rank undergrowth, while additional bird neighbors, including about ten Starlings, assembled. When the male Flicker returned, several Starlings sprang at him and chased him briskly across the creek. The cries ceased as three Starlings flew quietly up from the grass, shook



"HE WAVED HIS WINGS ECSTATICALLY WHENEVER HIS MATE APPEARED, AND PUFFED OUT HIS LONG, LANCEOLATE THROAT-FEATHERS AS HE SANG"

From the drawing by George Miksch Sutton

themselves a little, and made off. After about three minutes the female Flicker slowly flew across the stream to a low tree. About fifteen minutes later the Starlings began carrying grasses into the Flicker cavity. They brought, among other nest-material, several green leaves.

I watched the Flickers as closely as possible and am reasonably sure that during the succeeding three weeks the same birds were under observation. The female almost constantly frequented the yard, but she was especially fond of the old apple trees where she tapped at the bark, apparently searching a new nesting-site. Finally she located a suitable stub, near the top of a large apple tree near the house, where she began to drill. She chose a natural cavity which needed considerable enlargement, and on May 8 was busy digging out large chips which fell almost continuously on the grass about the base of the tree.

This Flicker was nervous in temperament, for she left her nest whenever anyone approached the tree. The Flickers which nested during 1926 in a tree nearer the house permitted us to look in at them at any time without their showing excitement. The nest, used in 1926 was only five feet from the ground.

For more than a week all was quiet in the apple tree where the Flickers had dug their new cavity; so quiet, in fact, that a Mourning Dove nest was built only about 10 feet from the Flicker's excavation.

On May 21, it was evident, however, that all was not well. Early that morning I heard the spluttering notes of a Starling, and shortly thereafter the panic-stricken cries of a Flicker, accompanied by chirps of small birds which were attracted by the combat.

When I approached the tree, intent upon shooting the Starlings if necessary, yet eager to learn what the birds would do unmolested by me, I saw two Starlings chasing the female Flicker fiercely across the yard. They finally flew high in air and shot across the creek to the woods beyond the adjoining field. To the best of my knowledge the female Flicker never returned. I believe the Starlings killed her.

On the following day I saw one of the Starlings fly slowly down to the yard with a heavy white object in its bill. A little later I went to that spot in the yard and found an unbroken Flicker egg. It did not occur to me, at the time, that the Starlings would thus carefully carry the eggs from the nest, but upon impulse later in the afternoon I returned to that portion of the yard and picked up five more Flicker eggs not more than 15 feet from each other. Another egg was found, badly broken. I may have stepped on it inadvertently.

In the meantime the Starlings called and fluttered about the nest excitedly. They were an entirely new pair. The male spent considerable time in perching on a small dead branch not far from the Flicker-hole, and there he chuckled, squealed, and imitated his bird neighbors. He waved his wings ecstatically whenever his mate appeared, and puffed out his long, lanceolate throat-feathers as he sang. Green leaves were soon brought, together with dried grasses and other nesting material.

On the following morning the two Mourning Dove eggs were found on the ground, badly broken. It is easy to believe that the Starlings were responsible for this vandalism.

For four days the male Flicker wandered about the yard, calling almost incessantly, giving the characteristic, rapidly repeated spring notes, but his mate did not return.

Perhaps it is needless to state that I had had enough of the Starlings and put an end to their intrusions on our place. I reasoned that while Starlings may have innocent or even beneficial food-habits, the Flickers, on the other hand, had been valued friends long before the Starlings came, and as bird-neighbors were preferable to the glossy interlopers.



NATURE'S CAMOUFLEUR—FLORIDA NIGHTHAWK OR 'BULLBAT' ON NEST

"By laying her eggs just anywhere on the ground in the open, the Nighthawk achieves a setting for her own peculiar coloring that conceals her completely during her two weeks or more of incubation. The lack of contrast between the subject and her background in this picture is typical of all protectively colored birds and animals photographed in their natural surroundings."—FRANCIS M. WESTON, U. S. Naval Air Station, Pensacola, Fla.

The Mourner of the Slashings

By CLARENCE M. BEAL, Jamestown, N. Y.

With Photographs by the Author

IT WAS on a brush-covered and over-grown hillside in the month of June. Mounting higher, the sun shone from the clear blue sky upon dewy leaf and flower which sparkled as though covered with jewels. Everywhere was life, song, and happiness.

From the slashings came the exuberant song of an Indigo Bunting. In the brush-piles Towhees called their name over and over again. Redstarts flashed their bright wings as they pursued insects through the leafy arbors and now and then spread their fan-like tails or sang, *I see, I see, I see, I see you*. High up on the branch of a dark hemlock at the edge of a nearby gully, a Black-throated Green Warbler performed acrobatics in his pursuit of a moth. Down in the moist woodlands below a Veery sang his plaintive melody. Perched on the branch of a stark dead chestnut tree, a Chestnut-sided Warbler now and then threw back his yellow-crowned head and uttered a few notes—short, but well worth listening to—which doubtless were addressed to his mate who at that time was brooding four tiny, newly hatched infants. Their nest was a small affair on the interior, but the outside seemed loosely constructed so that from a short distance one might have mistaken it for a bunch of dead leaves.

There were also long-tailed, red-eyed, secretive Black-billed Cuckoos, dwarf-like Wrens, Oven-birds, and frequently the song of the Mourning Warbler echoed through the undergrowth. It might, in a way, be written *civil, civil—servile, servile*. Not far away his wife incubated her four eggs. The nest was composed of a bulky, leafy foundation which enclosed a small, well-formed cup of grasses and rootlets; the eggs were of a creamy pink hue with the larger end well speckled in ochre.

As the days passed by all went well with the family. No Cowbird laid her large egg in their cradle. Evidently no skunk or weasel chanced that way for the nest was so close to the ground that any marauder could have found it.

Nearly two weeks after the eggs had been deposited the young pipped their way through the shell. From that day on they grew rapidly. Their pin-feathers had developed in a very short period. Eventually the male became



HERE COMES THE BUG



A MOURNING WARBLER FEEDS HER YOUNG

even more engrossed than the female in providing for the young. Both parents scoured the vicinity for morsels to feed their hungry offspring. At home there always were four wide-open mouths. A boisterous greeting welcomed the parents at every home-coming—at least when they carried food. When the hubbub of feeding had subsided, one fluffy youth might have been seen gulping down the tail-end of a green worm while the other three looked on jealously, but as all were fed on an average of every few minutes, we may infer that none was starved. Long before they could fly, the fledglings left the nest and scattered to the four winds. Their voice in the meantime had developed and all could utter faint chirps in answer to the loud metallic *chip* of their parents. The male now rarely sang.

Long before this the Chestnut-sided Warblers and Indigo Buntings had reared their families and had moved into the shaded woodlands. Fireweed blossomed in the open, sunlit glades. All the outdoors had fallen into the silent stillness of midsummer. Save for the continuous, yet seldom noticed, preaching of the Red-eyed Vireos, the occasional low robin-like song of a Scarlet Tanager, or the buzz of cicadas, all was quiet.

September came and with it the throngs of migrating Warblers. Some evening my Mourning Warblers doubtless joined them and sped southward toward their tropical winter home.

The Canyon Towhee

By ANGELINE M. KEEN, Lytle Star Route, Colorado Springs, Colo.

With Photographs by the Author

IN VIEW of the fact that Canyon Towhees have received only a short description in either Mrs. Bailey's splendid 'Handbook of the Birds of Western United States,' or Mr. Sclater's 'History of the Birds of Colorado,' I think, perhaps, readers of BIRD-LORE will be interested in some personal observations on this little-known species. Prior to July, 1924, I had never seen one; then they appeared to the number of four, and have been our constant companions ever since.

Although individuals seem to vary considerably, they might be described in general as being uniform grayish brown, with the crown and under-tail coverts bright rufous and the throat buffy, outlined by dark streaks, with a dark spot in the center of the breast. In shape and flight they resemble the well-known Eastern Towhee, but average about an inch longer.

Mrs. Bailey gives the call-notes as being a sharp *chip*, the song four repetitions of this, and a robin-like *screep-eeep-eeep* in flight. Daily association with them shows this to be true, but in addition they have a variety of other notes. The robin-like notes are given by both Towhees when one alights near another. The male sings from the lower branches of a tree or from the top of a wood-pile, post, or house-roof, but never from the ground. The song is usually four to seven repetitions of the call-note, blended into a rather musical ditty. Often, though, he gives a six-syllabled *choing, choink, chip, chip, chip*,



CANYON TOWHEE AT A FEEDING-STATION



YOUNG CANYON TOWHEES

chip, with the accent on the second syllable, the last four diminishing in volume. Sometimes this is varied by giving more or fewer repetitions of the first syllable. Both male and female sometimes give a whistled squeak which, as far as I can see, has no special significance.

The food-habits of this delightful bird, according to my observations, are mainly beneficial. It feeds on the ground, picking up weed-seeds, especially near the house. It is interesting to note that only one of these birds has ever been seen more than an eighth of a mile from a house since their arrival. They will eat millet or wheat at a feeding-station, as shown by the illustration, but prefer to forage for themselves. Sometimes they may eat a small quantity of waste grain, but they surely earn it by eating so many seeds of noxious weeds.

As Mrs. Bailey states that they nest in mesquite bushes 8 feet from the ground, I was much interested in seeing what their nesting-site would be here, along Turkey Creek, among the cottonwood trees, where mesquite is unknown. The first nest I found was placed in a thick mass of clematis, about $5\frac{1}{2}$ feet from the ground. One egg was deposited but was soon punctured, and as I found a House Wren there one evening, I accused him of the crime. This was in early May. Two other nests were found in similar locations, one of which contained three young June 16 and was empty June 28; whether or not the young matured I am not certain. The other clematis nest was not found until after nesting season was over. Another vacant nest was found in July in a red cedar tree, 4 feet from the ground.

The remaining three of the seven nests found in 1925 were built in a neighbor's barn and were constructed with binding-twine in lieu of weed-stems, but with

the black horse-hair lining found in all seven. Two were saddled on a beam near the roof, in Phœbe style, and the third on the stanchions in the dairy barn. One was empty when discovered; another contained one egg, but one young bird was found near it, which had been raised to the flying age; the third contained two eggs June 6, with the mother incubating; it was empty June 8.

Since there were only two pairs of birds at any time during the summer, and seven nests were found, it is easy to see that a nest is deserted on the slightest disturbance. This habit makes their nesting very difficult to observe. At any other time of year, however, they are remarkably tame and may easily be approached to within 8 to 10 feet, staying constantly about the house, yard, and garage.

As mentioned above, the nest always contained the characteristic black horse-hair lining, was rather large and bulky, and usually carefully concealed. The eggs were pale bluish white, speckled with black and a little lavender.

So much for a detailed description of the Canyon Towhee. His perky ways and endearing every-day familiarity are too subtle to be expressed in cold black and white. Like the Wren and many another woods brother, he must be seen to be fully appreciated. In closing let me say that if any reader of BIRD-LORE is visiting Colorado Springs at any time, I will be glad to write him directions for finding my home and a chance to study my Towhee friends. There are also nice woodsy camping-sites for a bird-lover, if he wishes to stay a day or so.



The Migration of North American Birds

SECOND SERIES

XXXIV. RED-BELLIED, GOLDEN-FRONTED AND GILA WOODPECKERS

Compiled by Harry C. Oberholser, Chiefly from Data in the Biological Survey

RED-BELLIED WOODPECKER

The **Red-bellied Woodpecker** (*Centurus carolinus*) is resident in the eastern United States and southeastern Canada, north to Massachusetts (casually), north to central New York, southeastern Ontario, southern Michigan, central Wisconsin, and southeastern Minnesota; west to southeastern South Dakota, eastern Nebraska, eastern Kansas, Oklahoma, northwestern and western central Texas; south to central southern Texas, southern Alabama, and southern Florida; and east to the Atlantic coast from Florida to Massachusetts. It is of accidental occurrence in northwestern Nebraska and eastern Colorado, and in Arizona.

GOLDEN-FRONTED WOODPECKER

The **Golden-fronted Woodpecker** (*Centurus aurifrons*) is resident and breeds in central and northern Mexico and in Texas; north to central northern Texas, and Chihuahua in Mexico; west to central western Texas, Chihuahua, Durango, and Jalisco; south to Michoacan and Hidalgo; and east to Hidalgo, Guanajuato, San Luis Potosi, Tamaulipas, and east central Texas.

GILA WOODPECKER

The **Gila Woodpecker** (*Centurus uropygialis*) is resident in northwestern Mexico and the adjacent southwestern corner of the United States. It is separable into two subspecies, the ranges of which are as follows:

The **Gila Woodpecker** (*Centurus uropygialis uropygialis*) breeds in northwestern Mexico and the southwestern United States; north to southwestern New Mexico, central Arizona, southeastern Nevada, and northern Lower California; west to southeastern California, and northwestern Lower California; south to north central Lower California, western Sonora, western Sinaloa, and Nayarit (Tepic); south to Jalisco and Aguas Calientes; and east to Aguas Calientes, Zacatecas, and Chihuahua.

Brewster's Woodpecker (*Centurus uropygialis brewsteri*), a smaller race, occupies the southern half of Lower California, north to about north latitude 27°, and south to Cape San Lucas.

Notes on the Plumage of North American Birds

SEVENTY-NINTH PAPER

By FRANK M. CHAPMAN

(See Frontispiece)

Gila Woodpecker (*Centurus uropygialis*, Figs. 1, 2).—I have never seen a specimen of this species in juvenal plumage. Ridgway describes the "young male" as "similar to the adult male but general color of head, neck, and underparts rather paler and more grayish, red crown-spot smaller and duller red, and back more or less tinged or washed with pale buffy grayish brown, the bars also less sharply defined than in adults." The adult male differs from the female in having a red crown-patch, as Mr. Fuertes' plate shows, and also in having more yellow on the belly.

As will be evident on comparing their figures, this species differs from the Golden-fronted Woodpecker (Figs. 5, 6) in the presence of bars on the rump and upper tail-coverts and additional barring of the tail, and, particularly, in the absence of yellow on the nape and forehead. Their close relationships are shown, however, by the tinge of yellow which is found on the nape and forehead of some specimens of the Gila Woodpecker.

Red-bellied Woodpecker (*Centurus carolinus*, Figs. 3, 4).—A juvenal male has the crown washed with dull red through which black markings show on the forehead and hind-head, the white bars above are tinged with fulvous and the breast is indistinctly spotted with black. A second specimen of the same age (not sexed, but probably a female) has the crown dull blackish with half-concealed whitish spots, the nape tinged with reddish and a mere suggestion of blackish spots on the breast. In each case these plumages are evidently followed by that of the adult as shown by our plate, after which there is no further appreciable change in color.

Golden-fronted Woodpecker (*Centurus aurifrons*, Figs. 5, 6).—We have no specimens in juvenal plumage. Ridgway describes the young male as being "Similar to the adult male, but much duller in coloration, the red crown-patch smaller and much less uniform in color, forehead, and sides of pileum more or less barred with blackish, hind-neck paler and duller yellow, post-nasal region dull grayish buffy indistinctly barred with dusky red (rarely somewhat yellowish), barring of back, etc., less sharply defined, and chest usually more or less streaked with dusky."

As our plate shows, this species differs from the more western Gila Woodpecker in having yellow on the nape and forehead, no bars on the rump and upper tail-coverts, and fewer bars on the tail; but just as some specimens of the Gila Woodpecker have traces of yellow on the nape and forehead, so some examples of the Golden-fronted have traces of bars on the rump, upper tail-coverts, and central tail-feathers, thereby indicating the close relationships of the two species.



A NESTING COOT



HORNED GREBE AND NEST

TWO ISLAND BUILDERS

Photograph by H. H. Pittman, Wauchope, Saskatchewan, Canada

Notes from Field and Study

Another Perching Pelican

At about 9.50 A.M., April 12, 1927, I noticed a California Brown Pelican perching on a tight wire running about 4 inches above the rail of our pier. This wire is less than one-fourth inch in diameter, and it is intended to prevent Gulls from roosting on the rail.

In the eight years of my residence at the Scripps Institution this is the sixth or seventh time that I have seen Pelicans attempting to perch on this wire, and it is the first time that I have seen the effort completely successful. I reported, in 1922 (*Condor*, XXIV, p. 213) a case in which the bird persisted in standing on the wire for a period of more than twenty minutes, during which it made frequent attempts to squat to the roosting position.

In this latest case, the bird had such convincing appearance of being stable and comfortable that I could not believe that it was actually on the wire until I had approached so closely that there could be no possible doubt. I could very clearly see its feet grasping the wire. At 10 A.M. I was joined by Dr. William E. Ritter, and at 10.05 the bird rose and twisted so as to launch itself in flight away from the pier. I had had it under observation for eleven minutes. There is no means of knowing how much longer it had been there before I noticed it.

The success of this Pelican may have been due to the fact that this wire is considerably tighter than the old wire of 1922. Even so, it seems to me that the wire must be very uncomfortable to a heavy bird with such feet as those of the Pelican.—W. E. ALLEN, Scripps Institution of Oceanography, La Jolla, Calif.

Swans in Idaho

On March 21, I saw a flock of 26 Swans about 15 miles southwest of Grangeville, Idaho. They were in a little two-acre irrigation reservoir with quite a number of Ducks near them, only 200 to 300 feet from the main highway and about 5 miles from the Salmon River.

There were two companions with me, and we stopped the car to watch them, but they were not disturbed. They do not appear to be common for they are the first I have seen, to identify, in a period of nine years in which I have traveled a great deal in Idaho, Utah, and Nevada, in connection with my work as a highway engineer.

During this period I have seen but one flock of Sandhill Cranes and that was in Ruby Valley, Nevada, in 1918.—E. E. KIDDER, Boise, Idaho.

Protection for Hawks and Owls

In view of the increasing scarcity of many birds of prey and the fact that almost every species in Ontario has been reduced to such numbers that extinction is approaching, therefore this class of birds can no longer be considered to have any economic bearing whatever, and the members of the McIlwraith Ornithological Club consider it advisable that all birds of prey should be protected. Most of the resident species are considered beneficial to agriculture, but the omission to protect a few species has been accepted as tacit permission to kill all, therefore on account of their greater abundance and their unsuspicious character, the beneficial species have suffered in much greater proportions than those who would be injurious if they existed in any considerable number. The so-called injurious species are so rare that bird students in Ontario do not succeed in finding an individual of each in a year, and when a northern species, like the Snowy Owl comes south, it is met with such a murderous assault that scarcely a single one survives to make the return journey, in spite of the fact that the stomach contents of the species in 1926 were found to be small mammals, and largely rats.

This Society therefore urges upon the Minister of Agriculture for Ontario that the killing of all Hawks and Owls be prohibited.—MCILWRAITH ORNITHOLOGICAL CLUB, London, Ontario, Canada.



A FRIENDLY GROUSE
 Photographed by John E. Howland

A Friendly Grouse

A friend of mine stated to me that he had several times seen a Ruffed Grouse at one particular point in a wood road leading from his house to the main highway. I visited the place with him on April 9, 1927, and shortly after we arrived the bird came out into the road. I had a camera with me and I made a number of snap-shots of it at about 6 feet distance from the camera, and, in each instance, nearer than that to another person. It was a female bird, and during the time which we remained there, which was probably at least twenty minutes, it occasionally nipped off bits of green grass or took up a little grit from the road. It seemed very much interested in the noise made by the motor, so much so that in one instance, when the motor was started, it jumped up on the open door of the car and in another instance on the hood. My assumption is that the bird is a solitary one in that region, that the humming of the engine bears a resemblance to the drumming of Grouse. It would seem from the fact that it inhabits this one particular spot that it may be nesting there. The bird several times picked at my finger and in one instance ran for my foot when I was moving it and struck it some way or other—I couldn't tell just how, but some part of its

body hit my foot quite forcibly. In approaching or departing, in no instance has the bird gone on the wing. When we started to leave the spot it instantly followed, very near the car. I remember only one other instance where a bird has acted in a somewhat similar manner. As I recall it the season of the year was about the same in both instances.—
 JOHN E. HOWLAND, *Vineyard Haven, Mass.*

Roosting Chimney Swifts

The birds that spend the winter in warmer climates are gathering in flocks now preparatory to making the trip south. Among these migratory birds I saw, a few days ago, a large flock of Chimney Swifts. Several times recently those birds have stayed over night in the chimney of the Christian Church, here in Washington, Iowa, of which I am pastor. About 6 o'clock in the evening they begin to gather in our part of town. They circle rapidly about in the air, and the number of them grows as others join the flock. After circling about over the church for a few minutes, some of them flutter over the top of the chimney and settle down, backward, into it. After the first ones enter, others follow, a few at a time, while the flock keeps circling about rapidly in the air. As some of them

seem about to enter the chimney, they either miss the entrance on account of their rapid flight, or else change their mind and pass on by, continuing their flight and soon try again. It is impossible to count them as they go into the chimney, but there are dozens of them—probably over one hundred—that fly about over the church, finally settling down into the chimney to spend the night.

Very early in the morning they leave the chimney and begin circling about in the air in search of food, and they keep this up all day long.

A very unusual thing happened one morning during the time that this flock of Swifts spent the nights in this chimney. About 8 o'clock that morning I saw a number of these birds flying about over the church, as they do in the evening when going to rest for the night. On watching them I saw that they were going into the chimney just as they do at night. It is a mystery to me why they were going into the chimney in the morning, unless it can be explained by one of these two ways. They had come out early and begun their flight in search for insects, but the air was very chilly that morning, and it may be that there were no insects flying so the Swifts returned to the chimney to wait till they could find something for breakfast. Or, possibly, they had been flying all night on their way south, as migratory birds often do, and went into the chimney in the morning to rest a while.—FRANK W. SUTTON, *Washington, Iowa*.

Warbler Notes from Easton, Pa.

On March 27, 1926, while watching my first Phoebe of the year, a yellow flash in some shrubbery caught my eye, and upon following it up it proved to be a Yellow Palm Warbler. The sunlight on its chestnut-colored crown and brilliant yellow breast made a sight for sore eyes, especially as more or less unsettled weather had preceded this date. The bird occasionally gave a loudish *chip*, and the habit of twitching its tail now and then made the identification of this early migrant positive.

This last spring (1927) seemed especially good for Warblers, the first wave being on

April 23, when Myrtle, Black-and-White, Black-throated Green, and Pine Warblers were seen. Worm-eating Warblers I had always regarded as rather rare around here, but arriving on May 5, they were surprisingly common for the rest of the month. Their *chee*ing song, so similar to that of the Chipping Sparrow, was frequently heard.

I saw my first Brewster's Warbler on May 7, and one was seen daily till the 12th. On all the occasions that the bird was seen its wing-bars were rather white than yellow, and as it was usually found around the same clump of trees, it was, most likely, the same individual.

From what I have read, the Mourning Warbler is quite rare in eastern Pennsylvania, so I am glad to report one which was seen on Friday, May 13. The black section about the eye, instead of the white eye-ring, distinguished it from the Connecticut Warbler. On May 25 another was seen; this time the black patch on the breast was noted in addition.—WILLIAM PAFF, *Easton, Pa.*

Chimney Swifts Nesting in a Well

This spring, a pair of Chimney Swifts built a nest and hatched a brood of young in an open well near an old deserted farm-house in the southern part of the county. The nest was typical for the species and was stuck just above a bulge in a rock in the well wall, just as they are stuck to the rocks in a chimney. It was located about 7 feet below the surface of the ground, and 10 feet above the water. The well has a dilapidated wooden curbing about 3 feet high around the top.

I admire the good taste shown by this pair of Swifts in choosing this cool well, with its moss-grown wall and rock fern around the top, instead of a sooty chimney.—JOHN B. LEWIS, *Lawrenceville, Va.*

A Unique Nest of a Domestic Pigeon

Usually the nests of Doves and Pigeons are rather loosely constructed and consist of but scanty materials, but recently, while assisting a neighbor in the construction of a Pigeon-loft in the mow of an old barn, I was impressed by finding what I believe is a unique nest. It chiefly consists of metal,

such as trimmings from tin and galvanized iron sheeting, insulated and uninsulated wire, one piece of which is No. 8 and 8 to 10 inches long (buried in the nest so that I cannot get exact measurements unless I tear the nest apart), one piece of baling wire (about a foot long), portion of hack-saw blade, old nails, finer iron and copper wire, hairpins, a safety pin (about 2 inches long), fruit-jar wire-sealing device, a few discarded house-fern leaves, bits of stems of weeds, hay, straw, and a few feathers.

Ordinarily one should suspect that bits of vegetable materials would be used by Pigeons in nest construction, but in this nest they are conspicuous because of their scarcity. The materials chiefly were gathered from an alley at the rear of a tinner's shop, although the birds could have obtained nesting materials of vegetable source from adjacent gardens, back yards, etc.

The nest is 10 by 12 inches in diameter, 4 inches deep, and weighs 1½ pounds. The accompanying photograph should give some idea of the appearance of this unique nest which still is in possession of the author.—

VERNON R. HABER, *Associate Professor of Entomology and Zoölogy, Pennsylvania State College, State College, Pa.*

A Prothonotary Warbler's Nest

On May 14, 1927, my husband and I went for an afternoon's outing on the Ogeechee River, near the western boundary of Chatham County, Georgia. Securing a boat, we paddled a mile or two up this beautiful stream between banks bordered to the very edge with fine trees, or overhung by willows and Ogeechee limes.

While my husband fished I listened to the numerous singing birds. To the familiar songs of Wood Thrush, Parula, and Yellow-throated Warbler, Carolina Wren, and our other usual summer birds was added a new song, and I watched eagerly for the singer.

We drifted back quietly down the stream, and in a clump of willows saw him—a glorious male Prothonotary Warbler. Lower down the river we saw a female. She flew to an old, shattered post standing in the water, and disappeared. Suspecting a nest in the post, we drew near and investigated it. The little mother bird flew off and we saw the nest containing five lovely eggs, light cream color, speckled with maroon. Fearing our investigation might attract others, we did not linger.

It seems there is no record of the eggs of



AN UNUSUAL NEST OF THE DOMESTIC PIGEON

the Prothonotary Warbler having been taken in Chatham County, Georgia.—MRS. V. H. BASSETT, *Savannah, Ga.*

The Care of Nestlings

A baby bird fallen from its nest presents quite a problem to the bird-lover. If left upon the ground, it will, most likely, fall a prey to cats, snakes, or other enemies. Perhaps the nest is out of reach, and even if it is accessible, a nearly fledged bird will seldom, if ever, stay in the nest after once having been out of it. Also, when one approaches a nest to replace one bird, the others may become frightened and flutter down.

One day last summer I heard some Robins making a great outcry, and soon found that one of their little ones was on the ground. It was about sundown, and there were several cats in the neighborhood and a number of small children, so after locating the nest from which it fell, I took the frightened little Robin into the house and wrapped it in flannel.

Early next morning I took some 1-inch mesh wire, such as is used for chicken yards and bent it into a sort of cage. I then found an old empty Robin's nest and placed that in my wire cage. Putting the young Robin in the nest, I closed the top of the cage and hung it upon a fence near the tree in which was the home nest.

The bird was hungry and soon began to call for food. The old birds heard him and made a great outcry. Of course, they did not understand the cage and were afraid of it, but the young bird kept calling for his breakfast, and before long the parents began to feed him through the wire. They fed him all day, and at dusk I carried him again to the house.

For some time this plan was continued. The little Robin was safe from enemies during the day, and yet he could receive his proper food from the parents. He could not get out of the cage and so could be carried quickly to shelter at night, and also when a severe shower came up one afternoon.

During this time, I watched the young birds in the nest and when they were able to fly from it, I opened the top of the wire cage,

and soon the old birds had this baby out and safely hidden in a large lilac bush which was nearby, and I rejoiced that because of my help their little family circle was unbroken.—ETTA M. MORSE, *Woonsocket, S. Dak.*



A Tired Wren

A House Wren made its home in an old cast-off tire that was hanging on the side of the garage, and in order to bring its nest to the desired level it had carried over 15 inches of sticks and nesting material.—A. E. STEINBRING, *Ripon, Wisc.*

A Wren Episode

For many years we have spent our summers in a cottage on the shore of White Bear Lake, and I have become greatly interested in the birds that nest in our grounds each season.

Wrens, that are causing so much discussion in these days, are among our annual visitors, having nested for many summers in a Wren-house we have placed on a corner of a grape-arbor.

I believe the Wrens that come to us are the well-behaved kind, for I have watched closely for any indication of their molesting other

birds, and they seem always too busy with their own affairs to pay attention to anything else. It is an incident in the life of a family of these perky little birds that I thought might prove of interest.

We have our front porch inclosed, the lower windows running on tracks, the upper ones fixed as transoms, and on the ledge of one of these transoms, a Robin built her nest and raised a family of five, a most interesting thing to watch, from our chairs on the porch.

One evening I lay on a swinging bed on the porch, enjoying a most beautiful sunset, when I became conscious of a Wren chattering and calling close by the porch. Soon I saw her fly up and cling to the screening, still keeping up the calling. Presently, a baby bird flew up beside the mother, and then

another, until finally there were six of them, all clinging to the screen, or endeavoring to do so.

Much to my surprise, the mother flew up to the abandoned Robin's nest on the window-ledge, and soon she had all her family up there, too, and with many twitterings they finally all settled in and around the old Robin's nest for the night. This was repeated the following night, but on the next night this mother bird took her family to some blue spruce trees and that was the last I saw of them.

I have wondered since if it is customary for one bird to use the abandoned nest of another kind of bird for such purposes. This is the first and only time it has come to my notice.
—SUSAN B. BRONSON, *Stillwater, Minn.*

THE SEASON

Edited by J. T. NICHOLS

LXII. April 15 to June 15, 1927

Singular lack of correspondence in dates of the principal May wave of north-bound birds is apparent between adjacent New York and Philadelphia Regions. Transients which were abundant in Central Park, New York City, May 10 and 11, may well have been part of the same group reported in the Public Garden, Boston, Mass., May 11, but we find no mention of them just to the west. On the other hand, the "main flight" reported for the neighborhood of Philadelphia a little later, seems to have been little represented nearby, east of the Hudson.

During the ten years that have passed since this Department was inaugurated, we have had the valuable coöperation of Dr. Winsor M. Tyler as our representative in the Boston region. Circumstances now compel Dr. Tyler's resignation, and the Editors announce that Dr. John B. May, of Cohasset, has very kindly consented to take Dr. Tyler's place.

· BOSTON REGION.—Like most years in the past, this present spring in New England "has been unusual." April, the month of

showers, was extremely dry until the 22d, and followed a very dry March. There was, however, considerable rain during the last ten days of the month, varied with snow in parts of northern New England. And May to the man on the street, was an exceedingly wet month. Although the total precipitation for the month was not excessive according to the official weather reports, there were few days when it was not cool and cloudy and on a majority of the days more or less rain actually precipitated.

The temperature, too, was erratic. After a cool first two weeks of April, the weather changed and several days of higher temperatures ensued, reaching a climax on April 20 when the Weather Bureau in Boston recorded the highest temperature ever recorded in April at the local station. Then the thermometer dropped again and May stayed generally cool.

The weather conditions were plainly reflected in the development of vegetation and in the arrival of the spring migrants. Early gardens showed much progress in the warm days of late April, and then for a period

seemed to stand almost stationary. A field plowed the first of May could not be harrowed until nearly a month later because the ground would not dry out. Some larch trees on my place show the effect of the changes in temperature, the needles on the terminal buds, which had commenced to open during the early warm weather, showing brown tips as if scorched by fire, while the later, more protected needles are their usual bright green.

The abrupt climb in temperature between April 14 and 20 brought flights of migrants to a number of localities. Then the return to colder weather slowed up the migration, and records for May show it to have been delayed quite a little in some instances.

By the last of April most of the water-fowl which winter off the Massachusetts coast had passed to the northward. Ice went out of many of the lakes of northern New England during the warm days about April 20 and its disappearance was quickly followed by the appearance of Loons on the inland waters. Black Ducks were breeding on Cape Cod and the nearby islands of Nantucket and Martha's Vineyard, and on the 27th a brood was reported to Mr. Forbush in Connecticut. Mated Wood Ducks were seen in central New Hampshire on April 18, in a locality where they had not bred for years, an encouraging sign of their return following protection.

Most of the Black-backed Gulls and Herring Gulls had left their wintering places by early May, though a few of the latter will breed on the Massachusetts coast. Laughing Gulls appeared late in April, and Bonaparte's Gulls were passing through. On May 27 I saw Bonaparte's, Laughing, and Herring Gulls together on the beach at Revere, with a few small flocks of Terns.

Shore-birds have been abundant in suitable locations. Greater Yellowlegs have been especially noticeable, and there have been many reports of Lesser Yellowlegs. A flock of about 50 of the latter were seen May 19 in Cohasset Harbor, about a mile from my home. And on May 28 I had a very satisfactory observation of a pair of Northern Phalaropes, feeding busily with a flock of small Sandpipers at Brace's Cove, East Gloucester. The Sandpipers were wading in

floating seaweed at the edge of the beach at high-water mark, occasionally running up the beach a little distance, while the two Phalaropes swam nervously about on the ocean side of the seaweed. When startled by passing autos, both Phalaropes and Sandpipers flew away together, but returned immediately to the same locality.

Hawks are becoming exceedingly scarce in most of eastern Massachusetts. A few Buteos were seen in April and May, and of course a few still breed. Sharp-shins and Cooper's are perhaps more abundant, and Marsh Hawks are occasionally reported. Ospreys were on their nests, apparently incubating, about April 28 in southern Connecticut and Massachusetts.

A brood of young Ruffed Grouse were reported on April 17 from Franklin County, Massachusetts, by one of Mr. Forbush's observers, a very early date, due perhaps to the warm dry weather in March and early April. After the cold, rainy May, I caught young Grouse, with wing-feathers barely showing, in Cohasset on June 3. Bob-whites are extirpated in many Massachusetts counties, and the Heath Hen reports are very discouraging. The state has placed a second warden on Martha's Vineyard in an effort to save the last few remaining birds, and the special warden who was employed for two years by the Federation of the Bird Clubs of New England is now maintained by the newly awakened interest of the islanders themselves.

The Northern Pileated Woodpecker is undoubtedly increasing as a summer resident in Massachusetts. Several reports of Red-headed Woodpeckers have been noted, and they are apparently breeding again in Brookline, Massachusetts. The ever-present and aggressive Starling is a constant menace to the breeding of Flickers, Hairies, and Red-heads, however.

The warm weather of mid-April started quite a flight of various Sparrows and brought out the earlier Warblers, Black and White, Pine and Yellow Palm Warblers appearing as well as migrating Myrtles. Most of the other Warblers waited until rising temperatures brought a wave of birds northward, about May 10.

As usual, the Public Garden in Boston proved an excellent place to find migrating birds in May. Mr. Morris Brounstein, who is continuing the work of the late Mr. Horace Wright in making an intensive study of the birds of the Garden, reported in the Bulletin of the Massachusetts Audubon Society, a list of forty-two migrants observed on the Public Garden and the adjacent Common on May 11. His list includes the Yellow-bellied Sapsucker, Orchard Oriole, Lincoln's, White-crowned, Savanna, and Swamp Sparrows, White-eyed Vireo, Nashville, Northern Parula, Black-throated Blue, Magnolia, Chestnut-sided, Blackburnian and Canada Warblers, Ruby-crowned Kinglet, Gray-cheeked and Olive-backed Thrushes. On May 20 I saw several Wilson's Warblers in the Garden, and a Louisiana Water-Thrush, but the particular find of the season was a Prothonotary Warbler, brought to my attention by Mr. Brounstein. This bird remained three days, scarcely leaving two adjacent elm trees during the time it was under observation by a number of competent observers.

Another interesting census was made by some thirty members and guests of the Essex County Ornithological Club, on their twenty-first annual cruise down the Ipswich River. This trip started on the afternoon of May 13 at South Middleton, Mass., and ended on the afternoon of May 15 at Ipswich. One hundred and six species were noted by the members of the party, while in their canoes or on short side excursions from the river. The scarcity of Warblers of certain species was noticeable, Baybreasts and Magnolias, usually noted, being conspicuously absent. It is only fair to say, however, that it rained 'buckets' on Sunday when several favorite Warbler resorts were to be visited. Among the notable birds recorded on this trip were the Lincoln's Sparrow, White-eyed Vireo, Alder Flycatcher, Sora Rail, Double-crested Cormorant, and Great Black-backed Gull.

In closing my first report from the Boston Region, I would like to ask the coöperation of all interested observers in the district, that these reports may be made of real value. I will greatly appreciate any reports of migration dates, interesting occurrences, etc.,

which might find a place under the heading of "The Seasons," and which may be mailed to me at Cohasset, Mass.—JOHN B. MAY, *Cohasset, Mass.*

NEW YORK REGION.—From mid-April until the 21st there was a series of days warmer than normal. By the 20th, forsythia had been in full bloom for some days at Garden City, Long Island, Norway maples were coming into flower, larch was in young leaf, and shrubbery growing green. A cherry tree opened its blossoms on the 21st.

The end of April and the month of May, rather consistently, were cool. After the mid-April transients had gone, there were comparatively few birds passing through until the first of a series of waves (separated by comparatively birdless days) occurred on the 29th. At Garden City, this first seemed larger than a second (May 1) or third (May 4 and 5)—but the third, fourth (May 8) and fifth (May 10 and 11), each rose higher than the wave preceding, so that in this last, birds not only reached their maximum numbers for the present spring, but were found in exceptional variety and abundance. A lesser sixth wave was noticed on May 14, and after being almost absent, transients were again numerous for several days later in the month, with a peak of abundance May 24.

An exceptionally early date for the Black-throated Green Warbler was obtained at Baldwin, Long Island, April 20 (K. W. Baasch); and a casual date is that reported for a Blackburnian Warbler at Newark, N. J., April 23, beautiful orange breast, etc., examined at leisure at close range (Evarts Loomis, Jr.). A Tennessee Warbler at Crystal Brook, near Port Jefferson, Long Island, May 1 (R. C. Murphy), is early; as also the Gray-cheeked Thrush, May 7, Milltown, N. J. (P. L. Collins). It is interesting how close to this date exceptionally early records for the Gray-cheek fall, in the course of years and in different sections. Were exceptionally early birds a mere matter of chance, one would expect no such correspondence in their dates as frequently occurs.

Birds were present in almost unprecedented abundance in Central Park, New

York City, in the wave of May 10 and 11. Their numbers are reported greatest on the 10th, but 2 Cerulean Warblers and a Philadelphia Vireo on the 11th (L. Griscom and others) are the most notable.

A Sooty Shearwater off Jones Beach, L. I., May 22 (H. H. Cleaves and R. Friedmann), and many off Southampton, L. I., May 28 to 30 (F. E. Watson), are notably early; 4 Least Sandpipers at Long Beach, L. I., June 5 (Watson), and a Ring-necked Plover at Southampton June 7 (R. Boulton), are notably late.

For the second summer a few pairs of the Least Tern are breeding at a Long Island beach near New York. W. D. Quattlebaum reports a colony (12 to 14) of Tree Swallows nesting near Beaver Lake, N. J., April 14. P. L. Collins reports two nests of this Swallow at Milltown, N. J., May 28. Randolph Jenks sends in a report of the Black-throated Green Warbler near Morristown, N. J., June 9.

One of the rarest finds of the spring is a Wilson's Phalarope reported near the Troy Meadows, N. J., May 21 and 22 (Mrs. C. S. Hegeman and others). It could be studied in great detail and there seems no possibility of error in the record.

A few of the interesting items for the Bronx section from the records of the Bronx County Bird Club may be mentioned. A Pigeon Hawk, April 16; Least Bitterns, April 29, are early; 2 Hooded Mergansers, April 24, Kensico Reservoir, late. A White-throated Sparrow, June 13, just above Tarrytown, was not singing, and is thought to have been a late straggler. As to large numbers of certain species, 75 Double-crested Cormorant were observed May 15; 35 Horned Grebes observed at Rye Beach, April 16; 400 Old-Squaw estimated there April 24; this year there are at least 6 pairs of Kentucky Warblers between Worthington and Tarrytown.

On May 30, T. D. Carter and R. H. Howland found a banded male Brewster's Warbler (No. 48866) and female Hooded Warbler, returned to Wyanokie, N. J., which have respectively minimum ages of six and five years.—J. T. NICHOLAS, *New York, N. Y.*

PHILADELPHIA REGION.—Cold, cloudy, or rainy weather prevailed throughout the season just passed. Only three days of bright sunshine occurred during May, and these came at the very end of the month. The temperature ranged from 43° on the 1st to 82° on the 10th.

May migration was somewhat prolonged, the main flight passing through between the 12th and the 20th. The abundance of Warblers from the 15th to the 18th, heavy migration of singing Olive-backed Thrushes from the 20th to the 25th, the unusual numbers of Yellow-billed Cuckoos and Scarlet Tanagers, and the frequent occurrence of the Red-breasted Nuthatch were the outstanding features of the May migration.

Many good lists of birds were made about mid-May. Individual observers saw from 75 to over 100 in one day. John Emlen, Jr., observed 103 species on May 15, by automobile, covering the northern half of Delaware and just touching Maryland at Maryland The Prothonotary Warbler, Pileated Woodpecker, and Barred Owl were found. Migrant Warblers were rather scarce.

A list of 85 species was made by the writer in the vicinity of Camden, N. J., on May 15. Twenty-two species were Warblers, as follows: Black and White Warbler, 1; Worm-eating Warbler, 2; Parula Warbler, 6; Cape May Warbler, 2; Yellow Warbler, 10; Black-throated Blue Warbler, 3; Myrtle Warbler, 6; Magnolia Warbler, 10; Chestnut-sided Warbler, 5; Bay-breasted Warbler, 2; Black-poll Warbler, 5; Blackburnian Warbler, 2; Black-throated green Warbler, 1; Prairie Warbler, 1; Oven-bird, 10; Water-thrush, 5; Maryland Yellow-throat, 20; Yellow-breasted Chat, 2; Hooded Warbler, 1; Wilson's Warbler, 1; Canada Warbler, 6; Redstart, 10.

A Connecticut Warbler, reported at Germantown, Pa., (Messrs. Hiatt and Emlen), May 11, is a rare spring record. Mr. Hiatt found an Egret at Delaware City, Del., May 21, and a Florida Gallinule's nest with eggs in a marsh near Wilmington, Del., May 27.

In this same marsh, on June 4, a Gallinule with five young was seen by Messrs. Gillespie, Bender, and Potter. The five downy, black,

red-billed young followed their clucking mother about like barnyard chicks.

Observers report a marked scarcity of Green Herons this spring—along the coast as well as from inland points.

The Yellow-crowned Night Heron has again appeared. Mr. Hiatt saw 3 at Seven-Mile Beach on June 5.

June shore-birds seen at Stone Harbor June 12: Knot, 4; Semi-palmated Sandpiper, 50; Sanderling, 7; Semi-palmated Plover, 2; Black-bellied Plover, 2; Turnstone, 7.

Records from Barnegat Bay by Mr. Urner: April 30, 103 species, 2 Glaucous Gulls; a late Widgeon; Golden-eye; Bufflehead, and Old-Squaw; 2 Black-bellied Plover (early); Short-billed Marsh Wren (Waretown). May 13 (with Mr. Kuerzi), 114 species, large numbers of common migrants missing, a Black Tern, and 250 Greater Yellow-legs. May 28, Manasquan River, Great-horned Owl, and Mourning Warbler. May 29, at Little Island Beach, an Egret.

Other records of interest: Three pairs of nesting Bobolinks, 3 Upland Plover at Tinicum, Bucks County, Pa., May 31, (Yoder). Adult Little Blue Heron at Cape May, April 30 (R. Richardson). Young Screech Owl in Rittenhouse Square, Philadelphia, May 26, and a Mockingbird at Glenolden, Pa., June 5 (Gillespie). Brant at Lewes, Del., May 29 (Bender, Gillespie, Pumyea, Potter).

The Starling is, no doubt, the principal bird enemy of the Japanese beetle. It has learned the trick of detecting the grubs which, about mid-May, lie just beneath the surface of the ground, where they feed on the grass roots. The Starlings can very easily reach the grubs with their long bills. The lawns become fairly netted with their borings. As an experiment, thirty-six square inches of sod free from borings was dug up. Eighteen grubs were found. Thirty-six square inches of sod which had been worked by the birds yielded only four grubs. Nearly every Starling is followed about by two or three English Sparrows. These birds also secure the grubs by pilfering from the Starlings. Hordes of grubs are consumed but hordes of beetles arrive as usual.—JULIAN K. POLTER, *Col-lingswood, N. J.*

PITTSBURGH REGION.—The past two months have seen unusual rainfall lasting for days at a time. This has been accompanied by cool weather with occasional very hot days when the sun has shone brilliantly. The farmers have had difficulty getting their plowing done and the crops into the ground, with the result that now crops have not progressed as far as usual. Natural vegetation, however, has thrived under this condition and on trips afield seems to be as dense as usual.

C. H. Manley made a trip east over the mountains on May 21 and 22, covering the same route as on the trip in the previous report (February 15 to April 15). At Schellsberg he saw a Bald Eagle flying over. Also, at this point, he saw a pair of Pileated Woodpeckers. Among other species seen on the trip are: Indigo Bunting, Yellow-breasted Chat, Black-billed Cuckoo, Least Flycatcher, Blue Jay, Nighthawk, Baltimore Oriole, American Redstart, Scarlet Tanager, Blackpoll Warbler.

The local Audubon Society's list of arrival dates for Warblers this season includes: Yellow Warbler, April 20; Myrtle Warbler, April 24; Oven-bird, American Redstart, Black-and-White and Black-throated Green Warbler, May 1; Cerulean Warbler, May 6; Blackburnian, Black-throated Blue, Chestnut-sided, Golden-winged, Kentucky, Magnolia, Nashville and Tennessee Warblers, Yellow-breasted Chat, Maryland Yellow-throat, May 8; Canada, Worm-eating, and Palm Warblers, May 15. Several common ones for this locality are not included in their list, probably because persons who recorded them failed to turn in their reports.

The Deer Creek region, near Harmarville, yields two interesting Owl records. On April 17, O. C. Reiter and P. F. Squier saw a Great Horned Owl. Mr. Squier comments that it is the first for this valley, and probably strayed in from some other nearby region. On May 1, C. H. Manley and a companion saw and heard a Barred Owl four times.

Ansel B. Miller, of Springs, Pa., in Somerset County, reports the wettest spring his county has ever known, with accompanying cool weather. The first warm days began April 15, and the following week was warm

with occasional showers. This brought migrants in large numbers. Among them are Ruby-crowned Kinglet, April 14; Blue-headed Vireo, April 15; White-throated Sparrow, Brown Thrasher, April 17; House Wren, Grasshopper Sparrow, April 18; Bewick's Wren, Savannah Sparrow, Myrtle and Black-throated Green Warbler, Mourning Dove, April 20; Black and White Warbler, Barn Swallow, April 21. He comments that these are near to the average dates for these species, except for the Mourning Dove, which is about three weeks late.

A week of cold weather, followed with hard frosts and snow flying, which slowed up the progress of migration. The last of the month was more moderate, and on April 29 the Baltimore Oriole and the Oven-bird arrived. May was characterized by much cold, raw weather. Mr. Miller states that it is not a good "Warbler year." He has failed to find the Bay-breasted, Cape May, and Wilson's. The Myrtle, Blackpoll, and Tennessee have been decidedly numerous. As breeders, the Yellow, Chestnut-sided, Black-throated Green, Black-throated Blue, Magnolia, Blackburnian, Parula, and Canada are present in normal numbers. The Scarlet Tanager and Rose-breasted Grosbeak, usually common in the region, are decidedly scarce this year. He has been able to find only one or two of each in June thus far.

At Hartstown, Pa., on May 28 to 30, Messrs. Reiter and Squier recorded 85 species. Among them are American Bittern, Indigo Bunting, Acadian and Least Flycatchers, Ruby-throated Hummingbird, Cedar Waxwing, Blue Jay, Prairie Horned Lark, Nighthawk, Oven-bird, Bartramian Sandpiper (I have talked with Todd at the Museum about this record and he says that it may be doubtful, but the fact that they saw it in a dry place and away from water makes him think that it is all right to include it. He makes a similar comment on the Savannah Sparrow which I have put in this list). Swamp and Savannah Sparrows, Barn and Cliff Swallows (have added this to the Squier-Reiter list because at the same locality and date I observed it gathering mud for nest from a puddle), Tree Swallow,

Blackpoll, Blue-winged (?), Canadian and Hooded Warbler, Louisiana Water-Thrush, Northern Water-Thrush, Turkey Vulture, Woodcock.—SIDNEY K. EASTWOOD, *Pittsburgh, Pa.*

WASHINGTON (D. C.) REGION.—April and May of 1927 were interesting months, as usual, in the Washington region. The spring migration was characterized by a good number of birds, which for the most part were apparently not held back to any extent by the almost uniformly cool weather prevailing throughout this period. Some birds, like the Bank Swallow, were even ahead of time.

Several species of more or less uncommon occurrence in this vicinity were observed this spring. The Short-billed Marsh Wren was recorded on May 10, 11, and 12, by W. H. Ball in the grounds of the Soldier's Home. This is one of the very rare birds in the vicinity of Washington, and these dates are apparently the latest on which the species has ever been observed here in the spring. Another interesting bird, though one not nearly so rare as the above, the Lincoln Sparrow, was seen by the same observer on May 14, at Miller, Va.

The Black Vulture, which has comparatively few records for the immediate vicinity of Washington, was reported on May 14 also at Miller, Va., by the same observer.

The White-rumped Sandpiper, which is one of the rarest birds of the family in the region about Washington, was reported again this year on May 12 at Chevy Chase Lake by Mr. Ball.

The Blue-winged Teal, one of the rarer birds of this region, was seen on March 31 at Arlington Beach, Va., by the same observer; and a flock of 8 was noted in the same locality on April 10.

The Laughing Gull, which is more or less common on the lower Potomac River, but which is less frequently seen in the vicinity of Washington, was noted this spring by the writer at Quantico, Va., on April 26.

The cold weather of this spring evidently had its effect on some birds, particularly water-fowl, in prolonging their stay, in the case of some species longer than previously

recorded. The Duck population of the Potomac River remained normal at least to the end of the first week in April, as on April 6 some 58,000 were observed between the city of Washington and Widewater, Va. It, however, rapidly decreased thereafter until only about 17,000 were present on April 14, and by April 26 less than 1,400. The reduction in numbers was considerably later than was the case last year, and this was reflected also in the late stay of a number of species.

The Bufflehead, one of the rarer Ducks of this region, was seen by Mr. Ball at Chesapeake Beach, Md., as late as May 8, and the White-winged and the American Scoters both tarried in the same locality at least until the same date. The American Merganser was seen by Mr. Ball at Alexander Island on May 28, which is two days beyond its previously latest record of May 26, 1905. Likewise, the Red-breasted Merganser, seen on May 28 and 30 at the same place by the same observer, is very much beyond its previous late record of May 2, 1920. The Gadwall, too, which in many seasons has been uncommon about Washington, remained this year on the Potomac River later than ever before, having been seen by the writer in considerable numbers on April 14, and to the number of 8 individuals on April 26. Likewise, the Canvasback broke its previous record of spring stay by remaining until April 14, on which date the writer observed it in Occoquan Bay. A small flock was subsequently seen on April 17, at New Alexandria, Va., by Mr. Ball. On April 28, a pair, evidently cripples, was noted at Alexandria, Va., by the writer. On the same date, opposite Alexandria, a single Whistling Swan was observed, perhaps also a bird that had been crippled, as this is much later than any of the previous records of the species in this vicinity and much later than any other during the present year. The Canada Goose was seen on May 14 at Miller, Va., by Mr. Ball, which is later than any previous record. The Black Tern, seen at Alexander Island by Mr. Ball on May 18, is also a late spring record of a bird that is not, as a rule, common at this season. The Horned Grebe, seen also by Mr. Ball on May 28 in the Tidal Basin at

Washington, remained thus considerably later than its previously latest record of May 16, 1917.

The three species of Gulls most numerous in the vicinity of Washington, the Herring, Ring-billed, and Bonaparte Gulls, were abundant up to at least April 14; the numbers of the first two mentioned greatly decreased during the following ten days, although the Bonaparte Gull continued to maintain its numbers until the latter part of April.

The progress of the nesting season in this region is indicated by a Robin sitting on its nest, seen by Mr. Ball on April 10; and a Louisiana Water-Thrush, nest-building, on the 18th of the same month.—HARRY C. OBERHOLSER, *Biological Survey, Washington, D. C.*

PENSACOLA (FLORIDA) REGION.—Temperature during this period has averaged a little above normal, in spite of a cool spell during the third week of April when thermometers in the city registered low in the 40's. There has been such a deficiency in rainfall that, on May 30, I walked dryshod over parts of the river swamps that, during eleven years' residence, I had never before seen above water. Many forest fires—at least one of them of considerable extent—resulted directly from the extreme dryness of the country, and mortality among nesting birds must have been heavy.

During the long succession of rainless days, migrants from across the Gulf passed inland without interruption, and many species that are often common appeared rare. However, a series of rain-squalls shortly after dawn on April 30 compelled a host of migrants to halt on the coast, and on that day the parks and the vacant lots of the city were swarming with birds. An hour spent in a well-shaded vacant lot that afternoon yielded me a list of 14 species of transients in addition to the resident forms. A single Black-throated Green Warbler, 3 Ovenbirds, and 1 Redstart were the only representatives of these sometimes common species noted this season. A Worm-eating Warbler (very rare) was the latest I have ever recorded. The Scarlet Tanager is a regular, and sometimes not uncommon,

spring migrant, but I had never before that afternoon had as many as 3 adult males in the field of my binoculars at once. But the outstanding feature of the occasion was the abundance of Thrushes. Veeries were common, and the Olive-backed Thrush (never before positively identified in spring) was abundant. I believe that there were also Gray-cheeked Thrushes present, but could not be certain.

In spite of the disappointing nature of the migration as a whole, a few items are of interest. The Least and the Black Tern appeared earlier than I had ever before recorded them, the first on April 24 and the second on May 8. Species rare in this region include: Blue Grosbeak, April 23; Rose-breasted Grosbeak, April 29 and May 2; Indigo Bunting, April 30; Mississippi Kite and Acadian Flycatcher, May 1; Bay-breasted Warbler, May 2; Hudsonian Curlew and Yellow-breasted Chat, May 8; Magnolia Warbler, May 12; White Ibis, May 15; White-rumped Sandpiper (an addition to my local list), May 19; and Frigate Bird (a wanderer rather than a true migrant), May 22 and 29 and June 12.

Departure dates later than ever before recorded are: Piping Plover, April 24; Titlark, April 26; Oven-bird, April 30; Water-Thrush, May 4; Dowitcher, May 8; and Semipalmated Plover and Barn Swallow, May 29.

The Cedar Waxwing, usually common and sometimes abundant, has not been noted at all this season. The Boat-tailed Grackle, only once before recorded, was seen again on May 15, and may prove to be a rare resident. Indigo Buntings, rare and irregular, were positively common on May 1. The Brown Pelican, a common resident but rare in spring, was more abundant on April 24 and for a few days thereafter than I had ever before noted it at any season. I know of no breeding-ground of this species within a hundred miles or more, and, as was the case on April 24, spring birds are almost without exception in juvenal plumage. The Least Bittern is unusually rare this year and none was seen until June 12.

The number of species, non-breeding individuals of which sometimes linger long

after their fellows have left, is larger than usual this season. A Loon in immature or winter plumage was seen on June 7. Black Terns are more numerous than I have ever before known them in spring. June 4 was the last day on which adults in breeding plumage outnumbered the immature birds, and it may be taken as the departure date of the breeders; but the species is still (June 15) extremely abundant, immature birds outnumbering adults about 20 to 1. The Common Tern, some in full breeding plumage, were still common on June 12. Three Red-breasted Mergansers (1 cripple and 2 capable of sustained flight) in immature plumage were seen on May 22 and 29. Two Black-bellied Plovers in immature or winter plumage were seen on May 29 and another on June 11. A single Killdeer lingered until May 11, and a Spotted Sandpiper was seen on the salt beaches on June 11.

S. A. Resmundo reported 7 nests of the Least Tern on May 22 (earliest ever recorded) and a set of 3 eggs in process of hatching on May 24 (by far the earliest); Red-bellied Woodpecker feeding young in the nest, May 27; Purple Martin feeding well-grown young in nest, June 3; and Florida Grackle feeding young in nest, June 14. Lieut. H. L. Hilton reported Florida Nighthawk with 2 eggs and Kingbird incubating, May 24. Mr. and Mrs. W. S. Coons reported Mourning Dove with small young and Bachman's Sparrow with 4 eggs, May 29. My own efforts at nest-hunting resulted in the finding of a Florida Redwing's nest with 3 eggs on April 24 (earliest ever recorded); Southern Blue Jay, young just hatched, May 4; Florida Nighthawk with well-grown young, Orchard Oriole with eggs on the point of hatching, and Mockingbird with newly hatched young, May 27; Florida Clapper Rail with small downy young, and Cuban Snowy and Wilson's Plovers which showed plainly by their actions that young were near, May 29; Yellow-billed Cuckoo, nest so high in such a slender sapling that it could not be examined, but which, from the actions of the parent, contained young, June 5; and 23 nests and several downy young of the Least Tern, June 11. A visit to the little Blue Heron colony on June 15 showed fully half of the

young birds on the wing and the others able to climb about actively in the nesting trees.

Trips into the upper part of the County on May 30 and June 5 showed a number of species, many in full song and all probably nesting, that occur rarely or not at all near the coast at this season: Yellow-crowned Night Heron, Wood Pewee, Acadian Flycatcher, Red-eyed Vireo, Prothonotary Warbler, Kentucky Warbler, Hooded Warbler, and Wood Thrush. A Swainson's Warbler, heard in full song on May 30, was an addition to my local list. A Spotted Sandpiper, seen feeding along the bank of a fresh-water stream, may have been a non-breeder.—FRANCIS M. WESTON, *U. S. Naval Air Station, Pensacola, Fla.*

OVERLIN (OHIO) REGION.—April 17, 18, and 19 were very warm, summerlike days, but the rest of the month was cool. May was, in general, tolerably warm. June has been unusually cool, especially at night.

From Wooster, James Stevenson and Roland Williams have sent in their reports as usual. Louis W. Campbell has given a very complete report for the Toledo region, and at Oberlin a large number of observers have been in the field during the season.

There was at least one marked influx of new migrants during the latter part of April at Oberlin. This occurred in the warm period from the 17th to the 19th and brought in a number of new species—Bonaparte's Gull, Greater Yellow-legs, Grasshopper Sparrow, Louisiana Water-Thrush, Brown Thrasher, and House Wren on the 17th; Barn Swallow on the 18th; and Green Heron, Spotted Sandpiper, Chimney Swift, and Ruby-crowned Kinglet on the 19th. The Florida Gallinule was noted at Wooster as early as the 16th.

During the rest of the month, probably because of no pronounced warm and favorable period, the arrival of species was scattered, with only a few new ones coming in at a time. Among the more interesting ones, a few may be mentioned. The Lincoln Sparrow arrived at Oberlin on the 21st, the Caspian Tern was noted on the 24th, Savannah Sparrow and Catbird on the 25th,

Piping Plover and Bobolink on the 28th, Lesser Yellow-legs and Baltimore Oriole on the 29th, and Black and White Warbler and Veery on the 30th.

During this period at Wooster, the Chimney Swift was first noted on the 18th and Black-throated Green Warbler and Northern Yellow-throat on the 30th. On the 30th also, a lingering Old Squaw was found and the first Prothonotary Warblers were seen. These Warblers were first reported from this vicinity last spring when several pairs were found nesting in a swamp. At Toledo, the Pine Warbler was noted on the 30th and again on May 15.

The Yellow Warbler was found first at Oberlin on May 1; the Wood Thrush and Nashville Warbler on the 2d; Blue-headed Vireo, Northern Yellow-throat, and Blue-winged Warbler on the 6th; and Kingbird and Warbling Vireo on the 8th. On the 9th, the White-crowned Sparrow, Chestnut-sided, Black-throated Green, and Magnolia Warblers were seen. The Blackburnian Warbler came on the 10th, the Red-eyed Vireo, Crested Flycatcher, and Least Flycatcher on the 11th, Bay-breasted Warbler on the 12th, and Canada Warbler and Ovenbird on the 13th.

The records for the Wooster region for this May period are somewhat earlier. There was apparently a pronounced wave in that locality on the 7th which was not noted at Oberlin. Wood Pewees and Kentucky Warblers were noted on the 13th. At Toledo a long list of new migrants was obtained on the 8th, which probably indicates a special movement at that time, possibly a continuance of the one noted at Wooster the day before. The Golden-winged Warbler was one of the species found on this date.

The longest lists of the year were obtained at Wooster and Oberlin on the 15th, although many characteristic species, usually marking the height of migration, did not occur at Oberlin until at least two days later. The more notable of the records obtained in the Oberlin and Marblehead region on the 14th and 15th were the Black-bellied and Semipalmated Plover, White-rumped Sandpiper, Turnstone, Whippoorwill, Ruby-throated Hummingbird, Orchard Oriole,

Yellow-throated Vireo, and Chat. The Wooster records include several of the above and in addition, the Tennessee, Cape May, Black-throated Blue, and Cerulean Warblers, and Gray-cheeked Thrush. The migration was more certainly in its maximum at Wooster on this date.

A large movement of birds occurred at Oberlin on the 17th, bringing in the Wood Pewee, Black-poll, Black-throated Blue, Mourning, and Northern Parula Warblers.

On the 22d, at Marblehead, were found King and Virginia Rail, Baird's Sandpiper, Yellow-bellied Flycatcher, Dickcissel, Philadelphia Vireo, Tennessee, and Connecticut Warblers. Three individuals of the rare Connecticut Warbler were found in separated places.

A comparison of the records for this last two month period for several of the more conspicuous and easily observed species gives on the average a difference of two days in time of arrival of migrants between Wooster and Oberlin. This is in favor of the former place. The records obtained at Toledo bring out the fact that instead of the migration there being later than at Oberlin, it tended during this last season to be more advanced. An average of several common species makes this difference about a day. Taking the entire spring migration into account, the time of arrival of the earlier species in the Oberlin and Wooster regions was about the same, while at Toledo it was about six days later. The species occurring in the latter half of the migration arrived at Wooster earlier than at Oberlin by about two days, while their arrival at Toledo, instead of being later than at Oberlin, tended to be somewhat earlier. Whether or not these differences are significant cannot, of course, be determined from one or two years' records, but do at least suggest that localities only a few miles apart may have quite a little variation in the time of arrival of the same species, and that this variation may not be the same throughout the migrating season.

One fact which has been noticed particularly by observers in northern Ohio this spring is that many of the winter and earlier migrating birds have remained unusually late. The case of the Old Squaw found at

Wooster on April 30 has already been mentioned. In addition to this, Rusty Blackbirds were still to be seen there on May 8. The following list, obtained at Marblehead on May 15, is of interest in this regard: Yellow-bellied Sapsucker, Rusty Blackbird, Purple Finch, Tree Sparrow, Junco, Myrtle Warbler, Winter Wren, Red-breasted Nuthatch, Golden-crowned Kinglet, and Hermit Thrush.

Mr. Campbell has reported several records from his locality that are unusually interesting and call for special attention.

Six Henslow's Sparrows were found by him on May 8 and identified very satisfactorily. On May 22, a colony of at least 15 pairs was located, and after that date the species was noted in various places. Each spring, for at least the last three years, the species has been noted a few times by Oberlin observers, and so should no longer be considered extremely rare in central northern Ohio.

On May 17, the Lark Sparrow was found near Toledo, and a nest with 4 young was located on June 11. The nesting of this species so far east is not common. The discovery of twenty-four individuals of another prairie species, the Dickcissel, in one field is likewise worthy of notice.

Two Bewick's Wrens were found at Lakeside on May 14. One of these was seen feeding a young bird able to fly. This Wren has been recorded only rarely in northern Ohio.—S. CHARLES KENDEIGH, *Oberlin, Ohio.*

CHICAGO REGION.—Taken as a whole, the weather during the past season was very cool, and on two occasions a hurricane passed through. As a result, birds have been generally scarce. The month of April was disappointing in that few of the early Warblers appeared. Palms, Black and Whites, Nashvilles, and Black-throated Greens did not show up in any numbers until May 2, when the first wave took place. An Indigo Bunting was also seen.

The next wave occurred on May 9, a few hours before the hurricane. Black-billed Cuckoos, Yellow-bellied Flycatchers, Philadelphia Vireos, and Nighthawks appeared as well as many of the commoner Warblers.

The third and last wave took place on the 21st. No new species were added to the list, but the numbers of all except the earliest Warblers were decidedly increased. Several species were seen rather late, and Magnolia (June 2, Mr. Burge) and Canada (June 3, the writer) Warblers remained well beyond their usual time of departure.

A marked influx of two southern birds but rarely found in this area was noticed this spring, namely, Bewick's Wren and Mockingbird. Examples of these two species were seen on several occasions in widely separated localities by Mr. Burge, Mr. Lyon, Dr. Lewy, the writer, and several others. It seems strange that they should appear during such a cool spring as the past has been.

Double-crested Cormorants have been quite common this spring on the small lakes some distance back from Lake Michigan, as the reports of Dr. Eifrig and others show. On several occasions large flocks were seen. Previously it had been the writer's opinion that this species was seldom met with in the spring.

No doubt due to the excess of water, shore-birds have been scarce. Observers have reported but one or two Jack Snipe and Yellowlegs a day in place of the usual hundreds which appear in April. The only species which apparently were in their customary numbers were Spotted and Least Sandpipers and Semipalmated and Piping Plovers. In fact, not a single Sanderling was reported all season.

To make up for the scarcity in numbers of the general run of birds, quite a few of the more uncommon species were seen. Notable among these are the following: Caspian Tern, May 14 (Audubon Society); Wilson's Phalarope, June 4 (Brodkorb); Red-backed Sandpiper, June 2 (Mrs. Baldwin); Green-crested Flycatcher, May 22 (Hunt); LeConte's Sparrow, April 17 (Brodkorb); Clay-colored Sparrow, May 21 (Brodkorb); Cliff Swallow, May 15 (Weber); Mourning Warbler, May 19 (Grasett).

On June 4 the writer found, at Lake Calumet, Shovellers, Lesser Scaups, and a Ring-necked Duck, besides the usual number of Blue-winged Teal, all apparently breeding.—PIERCE BRODKORB, *Evanston, Ill.*

MINNESOTA REGION.—The spring, this year, has been almost continuously cold, cloudy, and rainy. Light furnace fires have been necessary for comfort most of the time up to the present date. It has rained on 29 days at Minneapolis during the two months period and been cloudy on many others. This condition has prevailed throughout the state. There have been only two brief warm spells—the first on May 21, with temperature at Minneapolis 82°, and the second on June 8, with 87°. Both were followed by heavy, widespread rains. The storm of the night of June 8 was a severe electrical one, accompanied by a six-hour torrential rain during which 4.29 inches of water fell at Minneapolis. This was general over southern Minnesota.

On April 21 and 22, below-freezing temperatures occurred all over the state and an inch of snow fell at Minneapolis. On May 10 there was a light fall of snow as far south as Brainerd, and on the 14th it "snowed hard" at Hibbing, with a trace at Minneapolis. There was frost at Minneapolis on the night of June 5.

All this rain has filled the rivers, lakes, and swamps, and with the general inclement weather has seriously interfered with farming operations. Low-lying fields and meadows have been converted into swamps, and drainage ditches are running full. But, strange to say, many of the shallow lakes that had disappeared during the previous years of drought have not been restored and are still grass-grown bogs.

The cold held back vegetation ten days or more and delayed somewhat the passage of through-migrating birds. Marsh-birds are once more abundant, especially Rails. Shore-birds have not been as numerous as usual, due perhaps to the flooding of their feeding-places. Most of the migrants from the Far South arrived about on time, but some of those bound farther north lingered into early June. Tanagers were late in arriving. Cuckoos were late and scarce. Dickcissels are here but few in number in the vicinity of Minneapolis. The Carolina Wrens that were at Ft. Snelling last year have not been seen this spring, and no Blue-gray Gnatcatchers have been reported.

The following spring record for the vicinity of the Twin Cities has been compiled from reports kindly supplied by Mrs. F. S. Davidson, E. D. Swedenborg, and W. J. Breckenridge, of Minneapolis, and A. C. Rosenwinkel, of St. Paul, with a few additions from the field-work of the University Bird Class. Dates without comment signify first arrivals.

April 15, White-throated Sparrow, last June 9. 16th, Field Sparrow; last Fox Sparrow. 17th, Broad-winged Hawk, Savannah and Chipping Sparrows, Brown Thrasher, Bank Swallow, House Wren, Louisiana Water-Thrush. 18th, Yellow-headed Blackbird; first female Red-wings; Rough-winged Swallow; dragon-flies out. 19th, Towhee. 20th, Orange-crowned Warbler, last May 31. 21st, Palm Warbler, last May 18; last Brown Creeper. 22d, Holboell's Grebe, last May 19; Lincoln's Finch, last May 21; Pine Warbler, last May 17. 23d, Sora. 24th, Ruddy Duck, last May 17; Virginia Rail, Florida Gallinule, Osprey, Lark Sparrow, Grinnell's Water-Thrush; last May 31; last Lapland Longspurs; first garter snake. 25th, Bonaparte's Gull; Lesser Yellow-legs, last May 13. 26th, Last Tree Sparrow. 27th, Last Golden-crowned Kinglet. 28th, Spotted Sandpiper; Clay-colored Sparrow; Black and White Warbler; marsh marigolds in bloom. 29th, Green-winged Teal, Barn Swallow, last Hermit Thrush. 30th, Bufflehead, Green Heron, Chimney Swift, Bobolink, Nashville Warbler; dandelions in bloom.

May 1, Solitary Sandpiper, last May 11; Rose-breasted Grosbeak, Blue-headed Vireo, last May 22; Tennessee Warbler, last June 3; Willow Thrush, Olive-backed Thrush, last June 2. 2d, Common Tern, last June 1; Least Bittern, Least Sandpiper, Red-backed Sandpiper, last June 4; Nighthawk, Kingbird, Crested and Least Flycatchers, Wood Pewee, Baltimore Oriole, Red-eyed, Warbling, and Yellow-throated Vireos, Yellow and Chestnut-sided Warblers, Blackpoll Warbler, last June 3; Mourning Warbler, last June 4; Maryland Yellow-throat, Redstart, Catbird, Long-billed Marsh Wren, Wood Thrush, Gray-cheeked Thrush, last May 30. In bloom: ground plum, three-flowered geum, large bellwort, blue cohosh,

Jack-in-the-pulpit, golden ragwort, Juneberry, prickly ash, and wild strawberries. 4th, Black Tern, LeConte's Sparrow, Black-throated Green Warbler, Wilson's Warbler, last June 3; Woodcock's aerial performance on Ft. Snelling meadows. 5th, Pine Siskin. 6th, Short-billed Marsh Wren; Dove's nest. 7th, Oven-bird. 8th, Magnolia Warbler, last June 3; Blackburnian Warbler, last May 31; Virginia and Sora Rails' nests with incomplete sets of eggs; plum trees in bloom. 9th, Last Horned Grebes; Yellow-bellied Flycatcher, last June 3; Harris's Sparrow, last May 18; White-crowned Sparrow, Golden-winged Warbler, Cape May Warbler, last May 24; last Juncos; Willow and Olive-backed Thrushes very numerous. 10th, Wilson's Phalarope (scarce this spring); Hummingbird; Cerulean Warbler (Mrs. Davidson); meadows golden with marsh marigolds. 11th, Caspian Tern, last June 16; Sapsucker excavating nest; Broad-winged Hawk's nest, one egg; Yellow-headed Blackbirds and Long-billed Marsh Wrens building. 12th, Parula Warbler, last June 2. 13th, Gambel's Sparrow; young Bluebirds a-wing. 15th, Cliff Swallow (only one), Philadelphia Vireo, many Ring-billed Gulls; wild geranium in bloom; apple trees and bridal wreath in full bloom. 16th, Olive-sided Flycatcher, last June 4; Orchard Oriole; a single Bohemian Waxwing seen by Mr. Rosenwinkel at St. Paul; Blue Jay's nest, three eggs; House Wren feeding young. 17th, Greater Yellow-legs, Indigo Bunting; Sapsucker's nest, four eggs; Coot's nest, six eggs; Yellow Warbler's nest completed. 18th, Black-billed Cuckoo, Bay-breasted Warbler, last May 26; Canada Warbler, last June 3; nests of Brown Thrasher and Meadowlark with eggs; last Ruby-crowned Kinglet. In bloom: first lilacs, hoary and long-flowered puccoon, troximom, wood betony, blue-eyed grass, choke-cherry, larkspur, and bird's-foot violets, and bur and pin oaks. 20th, Semipalmated Plover, last June 3; Scarlet Tanager (two weeks late). Mr. Swedenborg writes: "On this day it rained continuously from before sunrise to after sunset and the temperature was around 40°. In spite of these conditions I believe the greatest wave of the season was passing

through. I was at Lake Harriet for two hours at sunset in the rain and found the trees swarming with birds, especially Warblers." 21st, Sanderling, Ruddy Turnstone; yellow lady's-slipper in bloom. 22d, Alder Flycatcher, last Myrtle Warblers. 24th, Nelson's Sparrow. 25th, Rose-breasted Grosbeak's nest, three eggs; Wood Thrush building; Yellow-headed Blackbirds' nests with eggs; Flicker's nest, six eggs; Catbird's nest, three eggs. 26th, Yellow-billed Cuckoo (very late). 27th, Connecticut Warbler (Mrs. Davidson); nest of Black Tern with eggs.

June 1, nests of Coot and Bittern with eggs hatching; Florida Gallinule's nest, thirteen eggs. 2d, two nests of Virginia Rail with full sets. 7th, male Cardinal.

The chief bird movements in the vicinity of Minneapolis were on April 16, when large influx of belated migrants arrived, and on May 2, 8, 12, 20, and 26. Miss Almira Torgerson of Fosston, Polk County, in the northwestern part of the state writes that there were two big bird-waves there on April 16 and 20 and a large Warbler movement on May 17 and 18. She reports Sandhill Cranes on April 24.

Mrs. J. A. Thabes, of Brainerd, writes: "Lakes and rivers very high; many cloudy and rainy days. Flowers are at least ten days late—lilacs just beginning to bloom June 3. A flock of 20 to 25 Pelicans alighted in Gull Lake on May 28."

Mr. S. C. Swanson, of Cannon Falls, states that "Most of the migrants were scarce this season. The Dickcissel arrived very early—May 9. Bohemian Waxwings were here feeding on climbing bittersweet berries as late as May 8. They were with Cedar Waxwings." He reports nests of the Hummingbird June 3, Kingbird May 31, Least Flycatcher May 26, Baltimore Oriole June 1, Chipping Sparrow May 7, Rose-breasted Grosbeak May 18, Yellow Warbler May 23, Redstart May 30, Chickadee April 28, Wood Thrush June 3, Bluebird April 17.

Miss Eleanor B. Jilson, of St. Paul, reports seeing the White-rumped and Baird's Sandpipers on May 19 at Frontenac on Lake Pepina, about 60 miles southeast of St. Paul. Also 4 Ruddy Turnstones on May 26, Henslow's Sparrow May 19, Black-throated

Blue Warbler May 17, Cerulean Warbler May 19, and on May 25 the Arkansas Kingbird for the first time in many years of observation in that locality. This last record brings the eastward trek of this western bird to the eastern border of the state. This has been accomplished during the last fifty years, for in 1879 it was a rare bird along the extreme western border of the state.

While at Frontenac, on June 4, Mr. Kilgore, Mr. Breckenridge, and the writer saw a mixed flock of shore-birds consisting of 24 Sanderlings, 5 Ruddy Turnstones, 3 Semipalmated Sandpipers, and a single Red-backed Sandpiper. The presence of so many Sanderlings was a surprise as they have been looked upon as rare stragglers in Minnesota. They were in both the light winter plumage and the rusty breeding dress. A Caspian Tern and an immature Ring-billed Gull were flying over the lake. A family of Red-bellied Woodpeckers was seen, the young as large as the parents but still being fed by the old birds. This is another species comparatively new to Minnesota, having extended its range northward in recent years. On the upland, not far from the river, we saw one or two Arkansas Kingbirds which supplements Miss Jilson's record.—THOS. S. ROBERTS, *Zoological Museum, University of Minnesota, Minneapolis, Minn.*

DENVER REGION.—The report for the past eight weeks relating to this region will be cast in chronologic form, touching on certain species mentioned in the reviews sent to me by my willing co-workers, and will not include all the species detected and mentioned by them.

It is hoped that this method will, for once at least, be helpful, for obvious reasons, to bird students outside of Colorado, and even to some within the state.

I am under many obligations to the following correspondents who have given generously of their information and time, and have thereby helped to round out a brief review of local Colorado bird-life: Mrs. Anna Benson, Fruita; Kenneth Gorgon, Fort Collins; Edward Hellstern, Fort Morgan; Mrs. R. H. Kerruish, Littleton; Miss Angeline Keen, Colorado Springs; R. M. Langdon, Fort

Collins; A. R. McCrimmon, Montrose; Miss Jean Sutherland, Boulder; and Mrs. John Weldon, Loveland.

April 15, Mourning Dove, Fruita; Cassin's Finch, Denver; Siskins very common. April 16, Mourning Dove, Boulder; Redpoll, Titlark, Littleton. April 17, Arkansas Kingbird, Fort Morgan; Baird's Wren, Colorado Springs; Raven, Fruita; Sharp-shinned Hawk, Denver. April 18, Bronzed Grackle, Fort Morgan; Sage Thrasher, Vesper Sparrow, Spotted Sandpiper, Kingfisher, Boulder; Audubon's and Myrtle Warblers, Lesser Yellow-legs, Blue-winged Teal, Long-spurred Towhee, Fort Collins; Audubon's Warbler and Myrtle Warbler, Loveland. April 20, Virginia Rail, Barn Owl, Fort Morgan; Robin wave, Fruita; Franklin's Gull, and Bonaparte's and Ring-billed Gulls, Fort Collins. April 21, Western Yellow-throat, Bronzed Grackles, Ruby-crowned Kinglet, Rock Wren, Vesper Sparrow, Greater Yellow-legs, Sora Rail, Fort Collins; American Rough legged Hawk, Mountain Chickadee, Denver. April 22, Audubon's Warbler, Gambel's Sparrow, Boulder; Osprey, Gambel's Sparrow, Fort Collins; Jack Snipe, Yellow-headed Blackbird, Denver. April 23, Gambel's Sparrow, Pink-sided, Gray-headed, and Shufeldt's Juncos, Song Sparrow, Fort Collins; Myrtle Warbler, Boulder; Sage Thrasher, Chipping Sparrow, Brewer's Sparrow, Montana Junco, Fruita; White-crowned Sparrow, Gambel's Sparrow, Rough-winged Swallow, Ruby-crowned Kinglet, Loveland. April 24, Sage Thrasher, Fort Collins; Bronzed Grackle, Gambel's Sparrow, Gray-headed Junco, Kingfisher, Denver. April 25, Spurred Towhee, Chipping Sparrow, Barn Swallow, Boulder; Lesser Snow Goose, Fort Collins; House Wren, Loveland. April 26, Green-tailed Towhee, Brewer's Sparrow, Virginia Rail, Fort Collins. April 27, Snowy Heron, Brewer's Blackbird, Fort Collins; Say's Phoebe, Denver. April 28, House Wren, Boulder; Chipping Sparrow, Fort Collins; April 29, House Wren, White-crowned Sparrow, Foster's Tern, Wilson's Phalarope, Fort Collins; Lesser Scaup, Virginia Rail, White-crowned Sparrow, Green-tailed Towhee, Denver. April 30, Glossy Ibis, Fort Collins; Great Blue Heron,

Fort Morgan; House Wren, Green-tailed Towhee, Denver.

May 1, Spurred Towhee, Avocet, Say's Phoebe, Yellow-headed Blackbird, Fort Morgan; Virginia and Yellow Warblers, Green-tailed Towhee, Great Blue Heron, Lazuli Bunting, Broad-tailed Hummingbird, Boulder; Rock Wren, Yellow Warbler, Barn Swallow, Savannah Sparrow, White-rumped Shrike, Brewer's Blackbird, Lark Bunting, Townsend's Solitaire, Denver; Poor-will, Colorado Springs. May 2, Marbled Godwit, Snowy Egret, Willet, Fort Collins; Burrowing Owl, Denver; Lark Sparrow, Boulder. May 3, Eastern Blue Jay, Brown Thrasher, Fort Morgan; Long-billed Dowitcher, Bittern, Virginia Warbler, Fort Collins; Macgillivray's Warbler, Brewer's Blackbird, Boulder; Pileolated Warbler, Plumbeous Vireo, Loveland. May 4, Yellow Warbler, Fort Collins; Long-spurred Towhee building nest, Loveland. May 5, Lark Sparrow, Fort Morgan; Rock Wren, Poor-will, Boulder. May 6, Black-bellied Plover, Savannah Sparrow, Fort Collins; Olive-backed Thrush, Fort Morgan; Plumbeous Vireo, Lewis's Woodpecker in Park, Denver. May 7, Myrtle and Audubon's Warblers, Fort Collins; Mockingbird, Fort Morgan; Black-headed Grosbeak, Loveland. May 8, Pileolated Warbler, Boulder; Townsend's Solitaire, Loveland. May 9, Townsend's Solitaire, Green-tailed Towhee, Olive-backed Thrush, Fort Collins; Chestnut-backed Bluebird, Lazuli Bunting, Warbling Vireo, Loveland. May 10, Black-necked Stilt, Eared and Western Grebes, Kingbird, Lark Bunting, Bank Swallow, Fort Collins; Green-tailed Towhee, Audubon's Warbler, Fort Morgan; Audubon's and Myrtle Warblers, Bullock's Oriole, Olive-backed Thrush, Red-tailed Hawk, Denver; Cowbird, Macgillivray's Warbler, Western Tanager, Yellow Warbler, Loveland. May 11, Swainson's Hawk, Montrose; White-crowned Sparrow, Boulder; Bullock's Oriole, Violet-green Swallow, Loveland. May 12, Ferruginous Rough-legged Hawk, Denver. May 13, Mockingbird, Black-crowned Night Heron, Colorado Springs; Black-headed Grosbeak, Denver; Brown Thrasher, Grey-headed and Pink-sided Juncos, Water-Thrush, Long-

tailed Chat, Lincoln's Sparrow nesting, Loveland. May 14, Pinyon Jay, Bronzed Grackles nesting, Denver. May 15, Audubon's Hermit Thrush, Colorado Springs; Kingbird, Black-headed Grosbeak, Yellow-throat, Western Tanager, Redstart, Boulder; Wood Pewee, Ring-billed Gull, Long-tailed Chat, Arkansas Kingbird, Lark Sparrow, Redstart, Green-tailed Towhee, Western Tanager, Olive-backed Thrush, Gambel's Sparrow, Warbling and Plumbeous Vireos, Mockingbird, Vesper Sparrow, Barn Swallow, Arkansas Kingbird, Spurred Towhee, Denver. May 17, Catbird, Boulder. May 18, Long-tailed Chat, Boulder. May 19, Evening Grosbeak, Red-breasted Nuthatch, Denver (Miss Prue Bostwick); Bullock's Oriole, Warbling Vireo, Violet-green Swallow, Olive-sided Flycatcher, Canyon Wren, Bobolink (an unusual find), Boulder. May 20, Pileolated Warbler, Denver; Rough-winged Swallow, Montrose. May 21, Olive-sided Flycatcher, Denver. May 23, Bronzed Grackles, Colorado Springs. May 24, Audubon's Hermit Thrush, Denver. May 25, Hummingbird (broad-tailed), Pinyon Jay, Denver; Mockingbird, Boulder. May 27, Nighthawk, Loveland. May 28, Avocet, nest and eggs, Ring-billed Gull, Great Blue Heron, Black-crowned Night Heron, Pintail, Widgeon, Mallard, Eared Grebe, Coot, Sora Rail, Ruddy Duck, Yellow-throat, Cinnamon Teal, Red-headed Woodpecker, Pied-billed Grebe, all shown to Miss Bostwick and myself by Messrs. Langdon and Gordon in the environs of Fort Collins. May 30, Nighthawk (Western), Ferrugineous Rough-legged Hawk, Denver; Ash-throated Flycatcher, Colorado Springs (an uncommon find).

June 3, Juvenile Robins out of nests, Denver; Coot, Broad-tailed Hummingbird, Nighthawk, Colorado Springs; juvenile Siskins and House-Finches out of nests, Boulder; Olive-backed Thrush, Loveland. June 5, Western Tanager, Denver (a late date); nest and eggs of Gray-headed Junco Montrose. June 6, juvenile Robins out of nest, Denver. June 7, Plumbeous Vireo, nest and eggs, Denver; Mockingbird, Loveland. June 8, Longspurs (Chestnut-colored ?), east of Colorado Springs; William-

son's Sapsucker, Loveland. June 9, Gambel's Quail, Mourning Dove, Lazuli Bunting, Yellow-throat, Long-tailed Chat, Catbird, Black-headed Grosbeak, Yellow Warbler, Bullock's Oriole, Montrose; Lazuli Bunting, Denver; Redstart, Colorado Springs. June 10, Cedar Waxwing, Loveland. June 11, Newly hatched Lark Buntings, Denver.

Nothwithstanding that the latter part of this season, now in review, was chilly and rainy, birds seemed to have been very common both as to species and individuals. Many winter residents and Ducks lingered here until a very late date; Warblers have not been as common in Denver as usual, though here there has been a large influx of Bronzed Grackles and Pine Siskins.—W. H. BERGTOLD, *Denver, Colo.*

OREGON REGION.—The last notes for this column were written on April 11 from Medford, Ore. The next three or four days were spent in this same territory and bird-migration continued at its height. On April 17 the first Western Tanagers and Tree Swallows were noted near Kerby, Josephine County, Ore. On the 13th, in the same locality, the first Calaveras Warblers for this year were added to my list. Rufous Hummers, California House Finches, and the common Sparrows continued very abundant. Black-throated Gray Warblers were very abundant throughout the area and, on my arrival in Portland, on April 19, I noted one in the Portland district for my first record of the season.

In the latter part of April a trip was made to northeastern Oregon, and I was again impressed with the abundance of migrating birds in this district. Gambel's, Savannah and Western Vesper Sparrows, Pipits, and Northern Violet-green Swallows were exceedingly abundant. Hungarian Partridges are evidently very much on the increase on this area as mated pairs were a common sight during three days' driving in Wallowa County.

On the first of May, near Pendleton, Umatilla County, Ore., the first Yellow Warblers and Arkansas Kingbirds were noted. On May 4, a trip was made into Washington and Yamhill counties adjacent to Portland.

The noteworthy thing about the trip was the immense numbers of Swallows present about a small lake near Carlton, Ore. Five species of Swallows were noted in addition to a number of Vaux Swifts, the Swallows being Barn, Tree, Northern Violet-green, Cliff, and Rough-winged. Such birds as Yellow-throats, Yellow Warblers, and Rufous Hummers seemed to be particularly abundant.

On May 9 I saw a Western Kingbird near Champoege Park, in Marion County, and also noted the first Long-tailed Chats for this year.

The remainder of the month of May was spent on an extended trip through southern and central Oregon. During the entire trip it appeared that birds were much more numerous than in the past two years. On May 10 I found a Junco's nest with five eggs near Roseburg, Ore., and on the 11th a Robin's nest with three eggs built on a railroad trestle near Powers, where people and speeders were continually passing back and forth. One of the most interesting things noted on the entire trip was that of a Western Kingbird at the mouth of Pistol River on the southwest coast of Oregon. Another was hearing several times and the seeing once a pair of Poor-wills in Jackson County, my first record west of the Cascade Mountains of Oregon.

My impression of the exceeding abundance of various species of Warblers, such as Yellow, Golden Pileolated, Macgillivray's, Pacific Yellow-throats, Long-tailed Chats, and such birds as Black-headed Grosbeaks, Lazuli Buntings, Savannah Sparrows, and similar species were confirmed in the notes given me by W. A. Elliott, president of the Portland Audubon Society, on two rather extensive trips which he made in the vicinity of Portland. According to Mr. Elliott, he has not seen these birds so abundant in many years. He also reports a Yellow-headed Blackbird seen on the Columbia River bottoms near Portland on May 22, and a Western Kingbird on May 3 near Donald, about 20 miles south of Portland, both very interesting records. He also noted 7 Turkey Vultures sitting on one dead tree near Gaston, Ore., on May 29.

The increasing number of records each year of Western Kingbirds in western Oregon raises the question whether or not these birds are extending their range into this district. Gradually the heavily timbered sections of western Oregon are being cleared and new areas put into cultivation, and it will be interesting to watch and see just what effect this will have on such species as the Western Kingbird and other lovers of the more open places.

Each year for several years, on June 3, the Pacific Nighthawks have arrived at the field in which they nest near my home. This year I happened to be home on the 1st and 2d, and watched in vain for these birds, thinking that perhaps I had overlooked them in past years. Promptly, however, on the night of the 3d they showed up and have been present daily since.

On June 2, I was interested to see fledgling Green-backed Goldfinches out of the nest, a rather early date for this species. Brewer's Blackbirds, Western Robins, and California Purple Finches were out of the nest upon my return to Portland on May 28, so they presumably showed up about the usual time of May 25.—IRA N. GABRIELSON, *Portland, Ore.*

SAN FRANCISCO REGION.—Weather conditions have fulfilled the prophecies of the astronomers, for frequent rains have fallen during the entire period covered by this report, the last occurring on June 6. The luxuriant growth of grass on the hills is only just beginning to take on the tones of soft beige velvet characteristic of the summer months. Many of the winter birds remained until after the middle of April. Last dates reported are as follows: Western Winter Wren (from the East Bay Region), April 16; Golden-crowned Kinglet, April 17; Intermediate Sparrow, April 19; Ruby-crowned Kinglet, April 20; Fox Sparrow, April 21; Audubon's and Myrtle Warblers, Pipit, and Hermit Thrush, April 24; Golden-crowned Sparrow, May 2; and Cedar Waxwings on May 15.

The earliest dates for summer visitors arriving after the middle of April are Black-headed Grosbeaks, Bank Swallows, Yellow Warbler, and Lazuli Bunting on April 19,

and the Chipping Sparrow on April 22. The Russet-backed Thrush anticipated its usual date of arrival by several days with the result that both the Russet-backed and Hermit Thrush were present on April 24. The Olive-sided Flycatcher was seen by Miss Wythe in Rockridge on May 8, and the Western Wood Pewee at Cashion by the Audubon Association on May 15. Cassin's Vireos were reported from Lafayette April 19 and from Cashion May 15. A pair of Western Kingbirds was seen at Fort Baker on May 3.

The Lutescent Warbler mentioned in the last report led off a brood of three on May 7. Allen's Hummingbirds were found brooding on April 20. A Western Flycatcher's nest, built on May 6, fell from its supports at some date previous to May 17 and has since been rebuilt. House Wrens came in much later than usual but have been quite common. Several nests were found near Lafayette April 19, and its song has been very constant in Berkeley since April 21. One lone male, which failed to find a mate, began building a nest on May 3, which it finished on May 10. A count taken on May 8 showed thirty-six songs within five minutes. Reports of nesting activity of permanent residents include the following items: a pair of California Quail were nesting in a north Berkeley garden and the female had laid eighteen eggs up to June 10, fifteen young birds left the nest. Other families of ten and twelve young have also been reported within the last few days. A pair of Sparrow Hawks was observed by Miss Wythe near their nesting-site on the lower campus from May 24 to 30. Young were being fed, but after May 30 no trace of them could be found. Nuttall's Woodpeckers were busy about their nests on April 19 at Lafayette, on which date Black Phœbes were found gathering nesting material. A California Jay was carrying building material into an elderberry bush near the museum as late as May 23. Brewer's Blackbirds were feeding young on the campus on May 28, and California Purple Finches had young out of the nest on May 26. Willow Goldfinches, which were found paired at Point Bonita on April 17, were still flying in flocks when seen at Lafayette on April 19, although Green-

backed Goldfinches were building their nests nearby. A pair of Western Lark Sparrows was building at Cashion on May 15 when the Audubon Association visited that region. Nuttall's Sparrows, in Golden Gate Park, were feeding young on May 15, and two broods of this same species were seen by Miss Wythe on the campus May 25. Juncos have been found in many widely separated localities in the Bay Region and have been seen with full-grown young since June 2. Song Sparrows and Brown Towhees had young families afield on the campus on May 25. The nest of the Titmouse included in the last report was vacated on May 23, when the last youngster to leave the nest during its first flight narrowly escaped being gobbled by a watchful Jay. A nest of the Tule Wren was found by the Audubon Association at Lake Merced on April 24. Nesting activities of Bush-tits seem to have been delayed by the damp, cold spring, so that no families were observed afield till the last week in April and most of the broods reported left their nests toward the end of May. Wren-tits have only recently been observed by the writer with young afield. Robins, like Juncos, are widely scattered in residential districts and were found feeding young in the nest on the campus on May 22 and May 28.

Mrs. G. E. Kelly reports that between April 15 and May 16 Marbled Godwits, Western Sandpipers, Red-backed Sandpipers, Long-billed Dowitchers, and Hudsonian Curlew were seen quite commonly on the Alameda shores. Black-bellied and Semipalmated Plover were present in very small numbers. On April 24, there appeared 10 Knots in fine plumage; on the 25th there were 13, and on the 27th only 1. At Baumberg, on April 16, she found 2 Snowy Plover nests, and near the Dumbarton bridge Caspian Terns were associated with the more common Forster's.

Loons were last reported on April 24 but have not at any time been seen in such large numbers as last year. One lone Heermann's Gull, with a snowy white head, was seen by the writer on San Francisco Bay on May 3. Glaucous-winged Gulls reported during May have been mostly immatures. Bonaparte's Gulls were not common after April 26. O

May 15, the writer happened to be on the beach below Santa Cruz during the middle of the day, and about 50 Western Sandpipers were running back and forth in the wake of the breakers. A dozen Hudsonian Curlew fed more sedately in the drier sand, while in the surf many Surf Scoters were diving through the breakers, and 12 Brown Pelicans were fishing farther out. Off shore, just inside the horizon line, a continuous line of Shearwaters flew northward near the surface of the water from 11.45 A.M. to 1 P.M.

Great Blue Herons were found nesting near San Quentin on April 26. A brood of 9 young Mallards was seen on Lake Merced on April 24 by the Audubon Association, and on May 15, 7 broods of these partially domesticated birds were seen on Stowe Lake by Miss Wythe. An unusual record was a Red-breasted Merganser reported by the Audubon Association on Lake Merced, April 24.

Only two transients have been observed during the period in the East Bay Region. The Western Gnatcatcher, which was seen on March 17 in the Berkeley hills, was reported again on April 16 by Mr. Linsdale and was singing in the writer's garden on April 20. The Western Tanager, which regularly passes through during the cherry season, arrived about April 24 and has been frequently seen or heard up to the date of writing (June 14).—AMELIA S. ALLEN, *Berkeley, Calif.*

LOS ANGELES REGION.—At the close of our last report, wintry conditions prevailed in the Los Angeles Region during three days of intermittent storm. The low temperature point for the season, 40°, was recorded December 26 and 27, and February 2. The low for April, 41°, corresponded with December 25 and 28. The winter was notable not only for abundant rain but also for continued moderate temperatures. Two short periods of summer heat have interrupted the fairly cool spring. April 21, the temperature rose to 90°; May 13, to 98°. Cloudy or foggy skies have aided in holding the green of the dense growth of vegetation, retarding somewhat the advance of dun-colored summer.

April 15, northwest of Palmdale, 7 Scott's Orioles were seen among the Joshua trees. A Cactus Wren was gathering shreds from one of these trees, in which a Scott's Oriole was probing the blossoms. Two Townsend's Solitaires were seen among the oaks in Mint Canyon, where they, or others of their kind, were found April 7. Reports of this species continued as follows: April 19, San Gabriel Wash, 1; April 20, Arroyo Seco Canyon entrance, 4; April 30, Soledad Canyon, 1.

April 15, Gambel's Sparrows were singing in my yard in numbers equal to their average for the month. April 16, only one was heard in early morning song and watch kept throughout the day disclosed no others. April 17, none were seen or heard. April 18, one was about all day but did not sing. None were seen thereafter except in foothill areas.

April 18. Russell Hubricht reported from the Playa del Rey marshes a great many Cinnamon Teal, 15 Fulvous Tree Ducks, 1 Red-head, 1 Blue-winged Teal (of rare occurrence here), 1 White-faced Glossy Ibis, 8 Avocets, Black-necked Stilts, and Long-billed Dowitchers

April 19. Calliope Hummingbirds were migrating through San Gabriel Wash, near Fish Canyon entrance, together with the Rufous and the Allen's. The Costa that nests there commonly was also seen. This is a route favored by many of the small Flycatchers, the Vireos, and the Warblers. The Hermit Warbler, first of the season, and the first Tanager were listed there that day, and the Black-chinned Sparrow was heard singing. On the same date, 5 Lazuli Buntings were seen at Sierra Madre.

April 20. The Western Blue Grosbeak arrived at his nesting roadside bank in Griffith Park, the same date as last year. The Lazuli Bunting was there also, as in past seasons, and all the other species enumerated each season, except the Costa's Hummingbird which was not seen on that date, but has since been reported, and the Road-runner. On May 9, my list of 19 species, made in that small area, included a new one—the Cowbird. Three males and one female were very much in evidence. Two pairs of Blue Grosbeaks are believed to be nesting. April 30, Western Blue Grosbeaks

were seen in some numbers in Soledad Canyon.

April 28. Marvelous floral display through Tejon region and Southern San Joaquin Valley called three of us out over the Ridge route to the valley, not neglecting to stop and see birds along the way. I cull from a list of 47 species a pair of Swainson's Hawks in an alfalfa field, and a great assemblage of migrating Warblers in a group of oaks near Sandberg's. Six species at least were present, most abundant being the Audubon's in very high plumage, the Black-throated Gray, the Townsend's, and the Hermit. A pair of Slender-billed Nuthatches were building in a cavity in an ancient black oak.

May 5. Mrs. Bates, Miss Craig, and the writer again went to the place where we found the Gray Vireo last year, and immediately heard its song from the identical place where its song was first heard last year. Very soon it came into view and sang its way past us, accompanied by a silent bird that we took to be its mate.

May 9. Miss Helen Pratt reports seeing a Green-tailed Towhee in Eagle Rock. About this time one was seen in Altadena.

May 11. A stop was made in Pacoima Wash at a certain *Rhus integrifolia* bush in which Cactus Wrens have nested for several seasons past. A new nest has been prepared, higher in the bush than the one occupied last year, out of reach of investigating hands, its entrance adorned with the freshly gathered heads of 'fox tail.' The probable owners of the nest (the fourth in this bush) watched us with much concern from blossom-

ing yucca stalks nearby. Three Cactus Wrens were seen in Tejunga Wash.

May 12. Phainopeplas were common in Santa Clara and Simi valleys. May 16, White-throated Swifts were seen in the Griffith Park Sanctuary and at Bee Rock across the hills. Costa's Hummingbird was at its station on the white sage and thistle-covered hillside near the Sanctuary entrance.

June 3. Mrs. C. H. Hall reports seeing a pair of Red Phalaropes in summer plumage on one of the marsh ponds at Playa del Rey. June 5, Mrs. Bates and I saw there 3 Northern Phalaropes. An Avocet continually protested our advance and drove Black-necked Stilts from a certain area it appeared to be guarding. Stilts were very numerous and performed in the customary way when their nesting-ground is invaded. A few White-faced Glossy Ibis have been there throughout the spring. June 11, Mrs. C. H. Hall reports finding 24 Least Terns' nests on bare flats in the marsh. In every instance the eggs were deposited in the footprints of man, horse, or dog (one instance).

June 13. I saw one male and two female or young Allen's Hummingbirds in Griffith Park. There may have been more among the large number that were whizzing about a thicket of tree tobacco, annually visited by hosts of Hummingbirds. Several pairs of Anna's and one Black-chinned Hummingbird were distinguished, the latter by its distinctive hum only. The Costa was seen in a patch of white sage nearby.—FRANCES B. SCHNEIDER, *Los Angeles, Calif.*

Book News and Reviews

PHEASANTS: THEIR LIVES AND HOMES. By WILLIAM BEEBE. In two volumes. Vol. I, xxxiii+257 pages; 34 plates (15 colored). Vol. II, xvi+309 pages; 30 plates (17 colored). Published under the auspices of the New York Zoölogical Society, by Doubleday, Page & Co., Garden City, 1926.

When a rarely gifted author writes from personal experience about remarkable birds that live in regions of exceptional interest, and secures the coöperation of the leading bird artists to illustrate his work, we have reason to expect results out of the ordinary. We should not, therefore, be surprised to find that the combination of Pheasants in their haunts with William Beebe, Thorburn, Lodge, Fuertes, and Knight, and the abundant means supplied by Col. Kuser has produced one of the most notable books on birds that has ever been published. The high cost and a small edition gave it a limited circulation, and it was therefore an admirable plan to issue an abridged edition which would greatly widen the book's sphere of usefulness.

The original edition was in four folio volumes, but we are told in a preface by Henry Fairfield Osborn that "the present volumes include all but the technical descriptions of the birds, and are, in effect, a summary of their known natural history."

During his seventeen months in the field the author met in life members of all the nineteen genera of Pheasants of which he treats. He opens nearly every biography, therefore, with an account of the bird in its haunts in which description of the country, adventure, and ornithology are blended in a readable whole, and to this is added an account of habits.

The opening pages give "a brief general account" of the classification, distribution, voice, roosts, color, etc., of Pheasants, and a concluding section treats of their care in captivity. The illustrations, reproduced by quadricolor and half-tone, while not up to the standard of the *de luxe* edition, are excellent.—F. M. C.

THE PRACTICAL VALUE OF BIRDS. By JUNIUS HENDERSON, Professor of Natural History and Curator of Museum, University of Colorado. Macmillan Co., New York, 1927. 12mo. xii+342 pages.

'The Practical Value of Birds' is an eminently practical book. Prof. Henderson shows himself thoroughly familiar with the literature of economic ornithology, and he has exercised both skill and judgment in making what he well terms a "digest-index" of it. No other volume known to us contains so much information about the food of North American birds, while the abundant citations refer to practically everything of value which has been written on this subject.

The 'Systematic Discussion' (pp. 115-290) of the food-habits of our birds from Grebes to Thrushes is preceded by a 'General Discussion' (pp. 3-112) of their esthetic value, the part they play in maintaining the balance of nature, their destruction, protection, etc. The author is especially practical in this portion of his book where he treats the more controversial aspects of his subject in a sane, reasonable, and convincing manner.—F. M. C.

THE OLD STAG. By HENRY WILLIAMSON. E. P. Dutton & Co., New York, 1927. 12mo. 347 pages.

This is a collection of nature stories by the author of 'The Lone Swallows.' The hero is usually beast or bird in whose tragic adventures Mr. Williamson quickly arouses and holds our interest by following the time-honored method of making an individual stand for the species. But if his method is not original at least he has his own way of using it. Combining knowledge of his subject with exceptional literary skill, he draws pictures that will hold their own with the best of their kind. His style is easy; there is nothing forced in either the planning or telling of his stories. Without sacrifice to art or science they both instruct and entertain. 'The Old Stag' is a thoroughly readable book.—F. M. C.

BULLETIN OF THE NORTHEASTERN BIRD-BANDING ASSOCIATION. Vol. III, No. 2. April, 1927 (Chas. B. Floyd, Treas., 95 South Street, Boston).

Publications relating to bird-banding are usually so filled with facts that to abstract them adequately is almost equivalent to re-publishing them. In the current issue of the 'Bulletin of the Northeastern Bird-Banding Association,' for example, Frederick C. Lincoln presents 'Notes on the Migration of Young Common Terns' and gives us in his table of 'Returns' more definite information in regard to the movements of these birds than was before available. Here is recorded a Tern which, banded at Anglesea, N. J., August 23, 1925, was captured in Trinidad, B. W. I., May 16, 1926; while another individual, banded at the same place August 5, 1923, was captured at the mouth of the Champan River, Mexico, in January, 1924. Here is certainly a surprising variation in routes. More remarkable is the journey of the individual which was banded at Eastern Egg Rock, Maine, July 3, 1913, and captured in the delta of the Niger River, Africa, in August, 1917.

Additional papers are by Albert A. Cross on 'Hawk-Banding'; Francis Beach White on 'Common and Arctic Terns'; Sadie B. Knox on 'Tree Sparrow History at Westfield, Massachusetts'; Allan Keniston on 'Trapping and Banding Owls During Their Migration'; Helen J. Robinson on 'Experiences with Nesting Chipping Sparrows and Tree Swallows' and C. L. Whittle 'A Recommendation to Bird Banders.' There are also three pages of 'General Notes' and a statement by E. H. Forbush of 'Problems for the Bird Bander' which we should like to print entire.—F. M. C.

The Ornithological Magazines

WILSON BULLETIN.—The December (1926) number opens with a detailed study of nesting Magnolia Warblers, by Margaret M. Nice. Clarence Bretsch records several breeding colonies of the Common Tern in the Thousand Islands, western New York. The most important paper, however, is a carefully prepared report on the Birds of the

Choctawhatchee Bay Region of northwestern Florida, by Messrs. Worthington and Todd, based on six months' field-work from November to May, 1920. Only 160 species were recorded during this period. In fact, the principal point determined was the general scarcity of bird-life, and the spring migration was particularly disappointing. The authors accept Prof. Cooke's hypothesis that the land-bird migrants do not stop in the sandy coastal pine barrens of the region, but fly inland before alighting. These conditions can be advantageously contrasted with those farther east at St. Marks, where a much more varied terrain produces the most varied bird-life of any part of Florida. The Cuban Snowy Plover, Mississippi Kite, Scissor-tailed Flycatcher, and Bachman's Warbler were among the more notable rarities recorded. There are important comments on the validity of various proposed and currently accepted subspecies, so that this paper must be consulted by every student of North American systematic ornithology.

The first number of the year 1927 opens with a study of the mentality of Crows by William Brewster Taylor, Jr. The author attempted to trap Crows with partial success, concluding that their behavior under these conditions did not predicate any superiority in their mental processes over other birds. Prof. Jones writes of birds killed by automobiles in various western states, and concludes that while this is undoubtedly one more agent of destruction, it does not constitute a definite menace to our native birds. Charles J. Spiker discusses the same subject briefly. Thomas D. Burleigh records the breeding of the Starling, Grasshopper Sparrow, and Dickcissel near Athens, Ga., the last a particularly noteworthy event. Among other articles in this issue is a list of the summer birds of the new Northern Forest Preserve in Vilas County, Wisconsin, by Prof. Alvin R. Cahn. The author lists 107 species, but no breeding evidence was obtained in a certain number of cases.

In both numbers there are the usual General Notes and the always vigorous bird-banding department. The report in the January issue shows that the Chicago meeting of the Club was highly successful.

Bird-Lore

A Bi-Monthly Magazine
Devoted to the Study and Protection of Birds
OFFICIAL ORGAN OF THE AUDUBON SOCIETIES

Edited by FRANK M. CHAPMAN
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Bird-Lore's Motto:

A Bird in the Bush Is Worth Two in the Hand

THIS is the season when circumstances too often force us to become foster parents to offspring of whose ways and wants, even whose name, we may be wholly ignorant. But the responsibility cannot be shirked. We seem to be the sole salvation of the pitifully helpless fledgling which one of the innumerable tragedies of nesting-time brings our way. Selfishness or fear of the results which may grow from our inexperience may argue on one side, but when the pathetic little creature, with no evidence of fear, raises an appealing head on a trembling neck and opens wide its mouth in speechless eloquence, its case is won.

Then comes a hasty attempt to live up to the pressing demands of our all-too-obvious duties, and at once we establish a new relationship with the feathered world. Hitherto birds have been birds and we have been human beings. Since it is obvious that the palpitating bunch of feathers which we have adopted cannot become a human being it follows that to the best of our ability we must become a bird. Our first avian act, therefore, is to build a nest or at least to provide a substitute for one; and we soon demonstrate the superiority of instinct over intelligence. We may know many things undreamt of by Oriole or Robin, but our best imitation of the nest of either would not deceive even a sightless fledgling. We certainly do not deceive ourselves, and freely admitting our inexperience and inferiority offer a humble endeavor in the shape of cotton-lined box or similar inadequate, ill-adapted makeshift.

Living quarters having been provided, a commissary department must be established. Here our ignorance becomes even more apparent and far more likely to be followed by fatal results. What *shall* we place in that yellow-lined cavity that is so suggestively opened toward us? What are the nestling equivalents of Mellen's Food or Walker-Gordon milk?

Crude as our improvised 'nest' may be, it is doubtless perfection when compared with our efforts to supply a natural diet. It is surprising that our charge survives. But quantity seems to be the first requisite of a young bird's fare, and with an amazing exhibition of digestive powers, the orphan asks for more and thrives! Day by day our relations become more intimate. Mind outgrows body. We note a fascinating development of the traits of childhood. Within a comparatively short time the little creature has learned to recognize us. Its increasing responsiveness calls for a name. It is no longer a bird but an individual and its hold on us is complete.

Now we pay the penalty of success. The feeling of responsibility that a life is dependent upon us is heightened by affection. For the first time, perhaps, we become keenly alive to the dangers by which birds are almost constantly surrounded. We realize, too, that poorly as we were prepared to build a nest and supply food, we are even less fitted to train up a bird in the way he should go. Deprived of the instruction of his kind, our ward has not learned to distinguish foe from friend. He becomes increasingly dependent upon us, becomes, indeed, more manlike than we have become birdlike. He looks to us not only for shelter, food, and protection, but for companionship. Then, sooner or later, comes the inevitable end. We can continue to supply food and shelter, but we cannot always take the place of that instinct which warns of danger. A little life goes out but it leaves us with memories of an association which has stimulated our sympathy with all bird-life and quickened our love of its kind.

What a pity it is that in some way relations which make birds infinitely more real to us cannot be mutually beneficial.

The Audubon Societies

SCHOOL DEPARTMENT

Edited by A. A. ALLEN, Ph.D.

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JENNY WREN'S DIARY

With Photographs by A. A. ALLEN, Ph.D.



HE SANG TO ME ONLY HALF THE TIME

Eight years ago this summer I took occasion to band all the House Wrens that were nesting in my bird-houses, together with the young of their first brood, intending to make studies of their home-life and to check up on some observations of their domestic arrangements that I had previously made. The intensive studies of S. Prentiss Baldwin at this time, however, on the same subject seemed to make the work of following up the banding operations an unnecessary burden, and no further effort was made in succeeding years to continue it. The Wrens kept on nesting in the bird-houses, and my glasses were often trained on their legs, looking for bands. Between fifty and sixty bands were placed on the birds in 1920, and for the next two years bands were frequently seen, though no effort was made to check up on the numbers. After four years no bands were noted nor have any been seen since, though I often scrutinize the birds in an effort to locate one that may have survived longer than his companions. In watching for the bands and at numerous other times I have been apprised of the many, many dangers with which the lives of the Wrens are beset, and the numerous accidents that are likely to befall them until, in my own mind, there is little question as to what becomes of their numerous children and eliminates the parents after a few years. It has occurred to me that if only some one could follow the life of a Wren from daylight until dark and from one year to the next, his report would not only make interesting reading but would give us such an insight into their troubles and into the difficulties of their lives as to arouse in us the kindest sympathy toward all birds.

Mr. Baldwin* has given us a glimpse of the domestic life of the Wren that is as surprising as it is interesting and, perhaps when he completes his studies, he will give us such an intimate story of its whole life that we will know Jenny Wren as we know our own children, and through her come to a better understanding of all birds.

In this number of BIRD-LORE I shall try to put myself in the place of the Wren and jot down, more or less in diary form, the more interesting of the happenings in the lives of the Wrens about me as they have come under my observation during the past fifteen or twenty years. We will assume that the events related all happened in the yearly round of one Wren that we will call 'Jenny.'

THE DIARY

April 30. Ithaca, N. Y. Well, here I am again, back at the old place, and it looks pretty good to me, too. How are all the neighbors? I can hardly wait until I have been the rounds. I hope there is plenty of room here this year. Last year I picked a fine home on a post, but a pair of Crested Flycatchers located in the box nearby and ruined my whole summer. I could hardly put my head out of the door without their flying at me. They perched right on my box and waited for my John until he didn't dare bring food to me or the children. It took all of my ingenuity to get rid of them. I wonder what they thought when they found those nice little round holes I punched in their eggs. If they come back this year, I don't believe they will nest quite so close to me.

Saw Johnny this morning and heard him a long time before I saw him. He says he has been back ten



I PICKED A FINE HOME ON A POST BUT A PAIR OF CRESTED FLYCATCHERS IN A BOX NEARBY RUINED MY SUMMER

*The Marriage Relations of the House Wren (*Troglodytes aedon*)' by S. Prentiss Baldwin. *The Auk* Vol. XXXVIII, 1921.



JENNY WREN HERSELF

days waiting for me and has almost sung his head off trying to tell everybody that this corner of the world is ours. He says he has a nest built in every hole around here—had to do it to keep the other Wrens out—and that I can have my pick. The only picking I will do is to throw out all of his old sticks. I never did see a male of our species that could make a decent nest and yet they all try so hard.

May 1. Got a bad start this morning. I was hunting along the bottom of the fence where I usually find so many spiders when suddenly, without any warning, a little gray animal made a jump at me and almost got me by the neck. It makes me shiver to write of it. It was nothing but a little shrew—a snail-eater—I don't know what gave him the courage to jump at me. Perhaps if his eyes had been better he would have caught me for I certainly wasn't expecting anything. Once I had a meadow mouse jump at me the same way and another time it was a chipmunk. Maybe I look too much like a mouse myself. After these narrow escapes I don't feel safe anywhere.

May 2. It was cold this morning, and I had a dreadful time finding enough to eat. All the spiders and insects were stiff and when they don't move I can't usually see them so that I have felt empty all day. I went the rounds of all the nesting-boxes on the place today and have about decided on the old box on the porch. I almost lost an eye when I peeped into that one on a pipe in the rose-garden. I never thought of there being anyone inside of it at this time of the year. The box out by the barn is half full of wire clippings from the chicken-fence. It reminds me of the nest my great grandmother once built of hair-pins. One would have a hard job nowadays to find enough hair-pins for a nest, but that was a long time ago. I don't think I care for wire myself.

Ever since I ran that sharp wire into my breast last year I have been afraid of metal things, though I don't suppose they are much worse than the thorns on some of these bushes where friend Catbird loves to nest. These telegraph wires they have stretched all over the country are dangerous, too. I have seen a good many birds break their necks or their wings against them. The worst thing in the shape of wire, however, is the chicken-wire fence when it gets a bit old and inconspicuous. Its not so bad for us Wrens but it kills many other birds. That 6-foot fence along the edge of the woods across the road is particularly bad. Last summer, when I was hunting spiders along the bottom of it, I came upon the remains of a Tanager, a Goldfinch, a Hummingbird, a Veery and a Louisiana Water-Thrush, and I don't suppose that represents one-half of the birds that killed themselves against it that season.

May 3. I went the rounds of the nesting-boxes on this place again this morning, and I must say half of them are not fit places to live in, even for a Wren, and certainly I am not very particular. Many a Wren has to content herself with a tin can, a musty hole under the porch roof, an insecure rotten limb, or almost any sort of a hole. Why I have friends who have nested in the clothes-pin bag, the sleeve of a scare-crow, an old derby hat, and all sorts of freak places when bird-houses were scarce. Here on this place there are plenty of nesting-boxes but every one has got something in it that I don't like. There is that one on the side of the garage—chuck-full of hornets—I'd have a lively time cleaning them out. Then there is that cute one on the fence-post. I should really like to use it but every time I stick my head in the hole it buzzes like a dentist's drill. Now I don't know anything about having teeth filled but I will take no chances with a sound like that in a dark hole, though I suppose it is only a humble bee making over that woolly last year's Chickadee's nest for her home. Then there is that box on the side of the barn. I know from experience that it has been full of miserable mites, ever since those Phœbes nested on top of it. I planned on using it last year for my second brood, but no sooner had I landed on it than I felt crawly all over. I wish these good people would clean it out and paint it with creolin. It is in a fine location, safe from cats and squirrels and snakes, and convenient to a lot of spiders, but I can't take any chances with some of those mites being left over from last year. Then there is that rose-garden box where I almost lost my eye yesterday. Impudent little Chickadee, to treat her callers in such a fashion! I wonder if she knows it was I who pitched her eggs out of the box by the pond last year. It really was a shame to do it, but she had eight eggs, and I knew that when she began to feed her babies I couldn't stand the competition. So I took the easiest and most effective way of getting her to raise them somewhere else. I may have to do the same thing this year to the Bluebirds' eggs in the box on the clothes-post if I decide to nest on the porch. It certainly is a sure way to destroy competition. The English Sparrows will fuss and fume around a Bluebird's box for weeks at a time trying to drive her away, annoying

her as she sits on her eggs and chasing her when she comes out of the box. If they only had sense enough to wait until she had laid her eggs and then pitched them out of the nest, she would move on without a word. But I am not going to be the one to tell them; they give me too much trouble as it is. Luckily they don't seem to care much for these boxes on posts 4 to 5 feet from the ground and, besides, they can't squeeze into a hole the size of a quarter the way I can.



ROUGH OUTSIDE BUT ROUGHER STILL WITHIN

It must be dreadful to be a Blue-bird and be forever annoyed by those Sparrows. I wish all of the bird-houses were placed low down and on posts in the open. I don't believe a Sparrow would use one in such a place. But then, of course, we would have the cats to contend with if the boxes were less than five feet from the ground.

May 4. I had a terrible experience last evening. I started to spend the night on the ledge over the door to the garage, and had scarcely got settled comfortably with my bill tucked under the feathers of my back when I felt a swish of air in the garage and awoke to find a big-eyed Screech Owl sitting not three feet from me on the ledge. Luckily he did not see me first. I fell off from that ledge so fast that he didn't have time to blink, and I scooted under a burlap bag that lay on the floor quicker than a mouse. But I certainly did

have an uncomfortable night under that bag. I didn't dare crawl out for fear the Owl would come back, and I didn't dare stay because of a rat that was chewing up the bag for a nest. I certainly am lucky to be alive—wish I could sing like Johnny, I'd make that old garage resound.

May 5. Well, I have decided on the box on the porch-post. It is rather close to the door and all those noisy children, but guess I can stand it, and I certainly won't be bothered by squirrels or snakes, and the Crested Flycatcher won't sit on this box and make my life miserable. Johnny already has the box half full of sticks that I suppose I will have to throw out before I can make

a good foundation for a nest. The hole is rather small but I am rather clever at wiggling long sticks through it, if I do say so myself. There are plenty of feathers in the chicken-yard, and I noticed quite a bunch of horsehair sticking out of that old chair in the shed next door. Last year when I ducked into the Crested Flycatcher's box to punch the eggs, I noticed a cast snake's skin along the edge of the nest. It gave me such a start that I was almost afraid to go in for fear the whole snake was coiled up in there ready to swallow me. Now that I have had time to think it over, it seems to me a pretty good idea, so I guess I will get one for my own nest this year.

May 10. I have been so busy building my nest the past five days that I have not had time to write. It takes quite a while to wiggle those crooked twigs through such a small hole and to arrange them after I get them inside. The feather-lining went in fast, but I almost lost my life fooling with those infernal horsehairs. One got twisted around my leg as I was carrying it through the hole, and then it got tangled around some of the twigs. When I started to fly from the box it pulled me back so quickly I didn't have time to yip, and there I dangled, and the harder I pulled and flopped, the more the horsehair cut my leg. John got so excited he couldn't do anything but chatter as though a cat had caught me. Fortunately for me, I chose this box on the porch in plain view of the kitchen window, for pretty soon the good lady that lives here

spied my trouble and came out with her scissors and freed me. My leg is still sore from the yanks I gave it in trying to get free, but I am thankful to be alive. I wouldn't use the old horsehairs in my nest if there was anything better around here to hold the feathers in place, and I certainly can't get along without the feathers when the foundation of my nest is so rough.

May 11. Troubles never come singly. I never have had so many narrow escapes in just building a nest. This morning I spied that snake-skin that I have been looking for to put the finishing touch on my nest this year. It was



IT COST ME MY TAIL BUT I GOT A FINE
SKIN FOR MY NEST

in the middle of a brush-pile, and would you believe it, I got so excited I never noticed that the snake was still attached to the other end of it. When I started tugging on it to get it loose from the brush, I must have waked him up for he snapped around so fast that I didn't have time to jump. Fortunately for me, he didn't aim quite straight. It cost me my tail, but I got a fine skin for my nest. I can't look at myself now without recalling the story of the little girl

who told her mother what she had learned in school about us. The teacher had told the children that the Wren was a small brown bird with no tail to speak of. The little girl said the teacher told them that the Wren was a little brown bird and it had a tail, but you mustn't talk about it.



THE INS AND OUTS OF MY SUMMER HOME

May 18. I have been laying eggs for a week—one each day—so that now I have seven of the cutest speckled brown eggs you ever saw, and it is time to sit on them. I never begin to incubate until I have laid the complete set, for I want them all to hatch on the same day so that the babies will be the same size and have an equal chance at the food that Johnny and I bring them. A female Cowbird has

been watching me for several days. I think that she would like to lay one of her eggs in my nest but, fortunately, the hole in the box is too small for her. Rearing a young Cowbird is one trouble I am usually spared, though I think I could conquer it and raise several of my own at the same time if my nest were large enough. As a matter of fact, that is just what I did do one year when one of those ornithology students, who is always experimenting, dropped a young Cowbird in my nest the day after my eggs hatched. I raised three of my own children at the same time, though I must confess it made me feel funny to feed a baby that grew to be fully twice as big as I am myself.

May 30. Not much excitement for the past twelve days. The first couple of days on the eggs I felt fidgety, and I guess I left them a dozen times to go hunt spiders, but the longer I sat the less I felt like leaving, until these last days you could hardly have pried me off. Johnny has been pretty good about bringing me food, but he has been acting rather queer the past few days—seems all tired out and leaves me for an hour at a time. I half suspect he has another mate somewhere around this territory that he has been assiduously guarding. Today my eggs are hatching, and pretty soon I will be able to get

around and find out what's up. I don't so much care myself, but I should hate to have anyone else find out that Johnny is a bigamist.

May 31. All seven of my eggs are hatched, but I must admit my babies are not very handsome. Where they get their dark skins from and that smoky fuzz on their backs I don't know. I will be glad when they get covered with feathers and are as good looking as John. Their bright yellow mouths certainly are attractive; it is a pleasure to fill them. Johnny just called me out to show me a cute little ring that some one gave him. He said he ventured into a Sparrow-trap and couldn't find his way out again, and the first thing he knew, that experimenting ornithologist came out and slipped this band on his leg and let him go. John says he's the only Wren in the block with such a bracelet, and he's afraid they will find him out. I wonder what he means by that.

June 1. Such a day! Never in all my life have I been through such an experience. A whole month of my life absolutely wasted!! I hadn't left my babies for ten minutes when I returned to find them all pitched out on to the ground, and no sign of the scoundrel that did it. Now I will have to build a new nest and start all over again. I don't know which makes me feel worse—the loss of those fine youngsters or what I learned today about my John. Will you believe it, I found out for certain that he had another mate with a whole nestful of little ones not 100 yards away from my home. All these days he has been fooling me and spending half of his time with this other female. I have a notion to chase her clear out of this territory and would if it were not for her babies.

June 2. Well, I got the truth out of John today. He admitted throwing my babies out of the nest. Said he wanted to help me feed them but as long as he had seven more in his other nest he feared he couldn't survive the summer. He wants me to lay some more eggs that will hatch after the other young ones have left the nest, and promises that he will help feed them if I do. After all, he is a pretty good sort, and I might do worse in another place. I know this land about here and just where to look for spiders and just what to expect in the way of enemies, so I



THEY BANDED HIM AND FOUND HIM OUT

guess I will stay. John isn't the biggest Wren in the world, and perhaps someone stronger than he is will come along and drive him out. I will stay with the winner and then we will be even. Now I must get busy on that new nest.

July 4. Well, this is a big day for everyone and biggest of all for me. After that terrible tragedy that happened to my first hatch, I am quite excited about this second lot of youngsters that are just ready to pop out of the nest-box at



TWO OF MY SEVEN FINE YOUNGSTERS

the slightest alarm. I have had good luck so far. All seven eggs hatched and all of the youngsters are big and strong, no deaths and no runts; they certainly have been keeping me busy. John kept his word and helped feed them but he was rather erratic because he felt he had to go down to that other female every once in a while and sing to keep up her courage for starting a second brood. She lost all but one of her seven after they left the nest, and it is a wonder she did not lose that one, too, she is so careless. I won't have much time for writing once mine get out of the box.

July 5. All out safely and we are through the first day without a fatality. I certainly did have a job keeping them from getting lost during the day and rounding them up. Now I have them all together for the night on this old

Yellow Warbler's nest. Thank goodness I no longer have to brood them. The first day is always the worst, so I feel quite happy to have them all safely together tonight. This makes a pretty good place to roost, but it is rather small. We will have to find a larger nest after a few days.

July 15. Well, I have only two children left. They are almost as big and strong as John and they look just like him, except for the light line over his eye and the dark flecks on their chests. They have grown so independent that they can get along without me. Guess I had better start another brood if I want them to be full grown by September when it will be time to migrate. I don't know just what did happen to all those youngsters of mine. One got caught in a mouse-trap that was set in the wood-shed, I know that. Another put his head down a rat-hole and never came out; a third swallowed several of those rose-chafers that I warned them against; a fourth one got caught by a stray cat that was hiding under the porch; and the fifth one got just plain lost. Guess I am lucky to have raised two and, of course, they may get killed before they get to Florida, so I guess I had better get busy on that second brood. I can't count the first one that John spoiled.

September 1. I didn't do quite so well with this second brood. I laid five eggs and only four of them hatched, and then it got so hot in the box during the first of August that we all nearly suffocated and the youngsters didn't grow as well as they should. Some of those plaguey mites got into the nest, and I had to hustle the youngsters out of it before they were quite strong enough to leave, and the result was that two of them died right away. Then one of the others got out in the road and was run over, so here I am with only one child to show for the season's work. The two from the first brood stayed around for a while, but soon they got so independent that nothing was good enough for them, and they wandered off with some other good-for-nothing youngsters. Maybe we will see them again but more likely not.

September 15. The nights are getting pretty cold now—spiders are getting scarce. Something tells me it is time for me to be moving south. I hear lots of strange voices overhead at night and many strange faces have come into the garden for a day or two at a time. One more drop in the temperature and I will be on my way to Florida. Those outermost wing-feathers don't feel quite strong enough to me yet, or I would have started before now. You see I have been moulting for a month; changed every feather on my body as well as on my wings. It takes lots of pep to grow a whole set of feathers, and I haven't been feeling quite so frisky for the past month. It seems to me that my new feathers are somewhat deeper brown than the ones I wore this summer, but it may be my imagination.

October 1. Washington, D. C. Here I am with all the other tourists in our country's Capital. Those last days in September, at Ithaca, were too much for me, so one clear night, with a northwest wind, I just got up my nerve and pitched up into the air higher than I had been since last spring and started



"SO THIS IS FLORIDA"

Jenny visits a Florida feeding log during February
Photo by Elsa G. Allen

south. There were a great lot of other birds migrating also. I could not see them but I could hear them in all directions once I got up into the air. I didn't intend to stop until I reached Washington, but I ran into a fog just before I reached Philadelphia and sort of lost my bearings. I couldn't tell whether I was high in the air or just above the trees, and I was afraid of flying into some of those miserable telegraph wires. Finally a light attracted me and the first thing I knew I flew bang into a window and almost stunned myself. I dropped to the ground, and, fortunately, there was some shrubbery beneath the window where I could hide. The next day I found myself in a strange place indeed and very unhappy. I scarcely dared hunt for spiders, there were so many cats and dogs and small children around. I tell you I did not stay there long, and the very next night I started on again and here I am. I almost bumped into that Washington Monument. It doesn't show at all at night against the sky, and many a bird has met his fate against it. These Washington Wrens have not all left yet for the south so perhaps I will stay around here for a few days.

October 15. So this is Florida! Not much like New York State. It is flat as a pancake and not a stone big enough to throw at a cat. Plenty of flowers and plenty of insects, though, so perhaps I can be happy until March when it will be time to start north again. I never did see so many snakes, though; I will be lucky to get out of here alive. First place I struck had a feeding-log for birds in the garden, and some of my New York friends, the Chipping Spar-

rows, were mingling with the Cardinals and Mockingbirds and Ground Doves. So I have decided to stay right here for a while and hunt Florida spiders around these lantanas and orange trees.

There is one thing that bothers me here in Florida and that is the boys with air-guns and rifles. They all seem to think that they need living targets to shoot at, and there isn't a bird safe around town. I'd rather take my chances with all the Hawks and Owls and snakes and weasels and skunks and cotton rats and opossums and raccoons and alligators and all my other enemies out in the woods and swamps than with those terrible guns. Up in New York State, where I spend the summer, it is only the really bad boys that shoot at us birds, but down here almost all of them seem to have guns and to shoot at everything that moves. I think the trouble must be with the parents. Either they are very thoughtless or else they have lived here such a short time that they think they are still in the wilderness and want their children to grow up like wild Indians. Good Heavens, here comes one of the rascals right now, sneaking along the fence as though he were on the war-path. It's time for me to move on.

QUESTIONS

1. Does the male or female Wren return first in the spring?
2. What does the male Wren do when he returns?
3. What does the female Wren do when she returns?
4. What is a Wren's nest built of?
5. How does the Wren avoid competition for the food-supply for its young?
6. In what sort of places will a Wren nest if there are no nesting-boxes?
7. Should nest-boxes be cleaned out before the Wrens return in the spring?
8. What is the best location for bird-boxes?
9. How small can the opening be in a Wren-house?
10. Name ten enemies of House Wrens.
11. Describe five accidents that are likely to happen to Wrens.
12. How many eggs does a House Wren lay? What color are they and how long are they incubated?
13. Are House Wrens ever polygamous?
14. Do both birds incubate and care for the young?
15. Describe the young Wrens at hatching and when they leave the nest.
16. Where do Wrens roost after they leave the nest? Are they ever brooded?
17. How many broods do Wrens have and what becomes of the young?
18. When do Wrens arrive in the spring and when do they leave in the fall?
19. Do they migrate by day or by night and what accidents may happen to them while migrating?
20. When do Wrens moult and how many of their feathers do they change?
21. Is their winter plumage the same as their summer?
22. Where do the House Wrens spend the winter and what are some of their enemies?

FROM YOUNG OBSERVERS

AN IMPATIENT TITMOUSE

I am very much interested in birds. My Daddy made me a bird-tray last winter which we hung on a pulley-line just outside the window. We put suet, sunflower seeds, and bread-crumbs in it. On trees back of our house we put suet, and in the cold weather there was always a bird feasting on it and others waiting nearby.

We had Downy Woodpeckers, White-breasted Nuthatches, Chickadees, Tufted Titmice, and a few times we even had a Brown Creeper when the weather was very cold. One night when it was snowing we brought the tray in the house and next morning, before we were up, we heard a tapping on the window, and when we went to see what it was, there was a Tufted Titmouse wanting his breakfast.

The Titmouse, Chickadees, and Nuthatches ate mostly sunflower seeds. The Downy Woodpeckers ate suet most of the time. I hope you will like my letter and another time I will write about the spring birds that I have seen. I am six years old and in the second grade in school.—FOSTER D. SMITH, JR., *Convent Station, N. J.*

OUR BIRD CLUB

I am eleven years old and am in the sixth grade. We have a Bird Club in our room. I am Secretary of it.

Our teacher takes us on bird-hikes sometimes. The last time we went we saw sixteen different kinds of birds. Some of the birds we saw were: Red-winged Blackbird, Phoebe, Robin, English Sparrow, and Bluebird. We also saw the Meadow Lark. I think it is a very interesting bird. We had quite a lot of fun watching it. I like to watch it fly up from one place and sail down to another. The Brown Creeper is very interesting, because of the way it climbs up the trunk of one tree and flies to the foot of another tree and goes up that one.

In winter when we cannot go out we set up a little tree outside the window and put suet, sunflower seeds, and grains of corn on it. The birds that come there are: Chickadees, Nuthatches, Blue Jays, Woodpeckers, and Tufted Titmice. They do not come there as often now, because they can find their own food.—MARY STEED, *Morristown, N. J.*

THE ROBIN AND THE CROW

One day I saw a cat prowling around a tree. I looked up into the tree but I did not see anything. All at once I saw a Robin—I think she was making her nest. I do not know whether the cat saw her or not. She climbed the tree

and just as she was near the top, I heard a loud caw and a Crow flew to the tree. The cat was so surprised that she lost her balance and fell.

A few days later I saw that the Robin had built her nest in a different tree. The cat had had her lesson and never tried to catch a bird again.—WALTER HUGHES (age, 11 years), *Convent, N. J.*

THE HERON

One day in the middle of July my friend George and I were going swimming in Bolton's Pond. George brought an inner tube. When we got there there were Swallows skimming over the water and Spotted Sandpiper below the dam.

After we were tired of swimming, we took the tube. We both got on the tube, putting our legs over the top of it, and went out into the middle of the pond. Then there came a bird over our heads. It lighted in the water not far from the shore. We slowly moved toward it until we were near enough to see its color. It was white with a slight tint of blue on his breast and wings and stood about 3 feet high. When George got home he asked his Dad and he said it was a Little Blue Heron.—PETER CROSBY (age, 11 years).

WERE THEY ORPHANS?

The other day, I was looking at a number of Robins who were hunting for things to eat on a large cricket-field near our house. I counted nearly fifty. Among them were several young birds that were being fed by the parent birds. While I casually watched them, my attention was attracted by a young bird that was being fed a worm. I thought I had seen this bird being fed by a different older bird at the other side of the field. So I continued to watch it, and saw it fly to another Robin, and then another, and take something from each of them. Soon it seemed to me that it had been fed by every other bird there. None of them refused it, and some of them called to it to come and get what they had found. Later that day I saw another young Robin being fed the same way by about thirty older birds.—CHARLES FRANKLIN SHEPPARD, *Chestnut Hill, Philadelphia, Pa.*

FLICKER COURTSHIP

I was looking for some new Warblers when the following incident happened. I sat down on a bench to watch some White-crowned and White-throated Sparrows feeding. The Bronzed Grackles were walking along the water's edge, the Palm Warbler was hopping on the ground near a Maryland Yellowthroat, a Robin was singing, and in the distance I could hear a Brown Thrasher.

All of a sudden a Flicker flew to a branch of a small tree nearby. A second Flicker flew to the same branch and the first Flicker left for another. Again the second Flicker flew to the same branch and the first Flicker flew away.

They repeated this several times till at last the first Flicker flew to the back of a bench nearby, the second Flicker following. They sat there for about a minute, bills pointed toward each other, about 6 inches apart. The first Flicker, evidently the male, then began to nod his head quickly, bow, and twist his tail. Then they were still, bills pointing to each other. Then the second did the same.

Then they both seemed to slip forward, heads downward and raised, their wings and tail showing their bright yellow lining. They again began to bob and bow and then they flew away.—MARTIN M. MIROFF, *Chicago, Ills.*

THE GREAT HORNED OWL

Swiftly, through the air so calm,
Sails the silent ghost of night;
Below him lies the sleeping farm;
Above, the moon's pale, waning light.

No sound is uttered in the flight;
There is no telltale swish of wing;
A drifting shadow in the night,
Is this silent, nocturnal king.

Flee, in vain, oh frightened hare,
Oh, thieving mouse, thy form conceal,
A swifter king of night is near,
And thou shall be his midnight meal.

One piercing eye is turned below
In search of frightened, hiding prey,
And swiftly on the shadow goes
Until the first grey streaks of day.

And quaking mice lie in the grass,
And whisper among them in fright,
As a grey shadow goes drifting past,
"The Great Horned Owl is hunting tonight."

—BILLY WARD

(Age, 14 years), *Timmons ville, S. C.*

The Audubon Societies

EXECUTIVE DEPARTMENT

Edited by T. GILBERT PEARSON, LL.D., President

Address all correspondence, and send all remittances, for dues and contributions, to the National Association of Audubon Societies, 1974 Broadway, New York City. Telephone, Trafalgar 2077

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FREDERIC A. LUCAS, SC.D., *Second Vice-President* JONATHAN DWIGHT, M.D., *Treasurer*
SAMUEL T. CARTER, JR., *Attorney*

Any person, club, school or company in sympathy with the objects of this Association may become a member of it, and all are welcome.

Classes of Membership in the National Association of Audubon Societies for the Protection of Wild Birds and Animals:

\$5 annually pays for a Sustaining Membership
\$100 paid at one time constitutes a Life Membership
\$1,000 constitutes a person a Patron
\$5,000 constitutes a person a Founder
\$25,000 constitutes a person a Benefactor

FORM OF BEQUEST:—I do hereby give and bequeath to the National Association of Audubon Societies for the Protection of Wild Birds and Animals (Incorporated), of the City of New York.

A WORD TO MEMBERS

From time to time we are consulted by members and friends who contemplate making bequests to the Association, for the purpose of placing it in a stronger position to work for safeguarding the protection of wild birds and animals. We are always glad to be consulted about matters of this character and all requests for information or letters of inquiry on the subject are held by your President in the strictest confidence.

Such communications also give opportunity for explaining how highly important it is for those desiring to mention the Association in their wills to use the correct corporate title. It seems fitting, therefore, that there be brought to the attention of our members and friends a letter recently received from Samuel T. Carter, Jr., the attorney of the Association, which is as follows:

DEAR DR. PEARSON: I brought up at the Board meeting last week the question of the rather loose way in which legacies had been given recently to the Association under the wills and you asked me to give you further data as to this.

Of the wills in which the Association has been interested in the last two or three years not more than one-third of them have contained the correct title of the Association.

The following are some of the names that have been used: "National Audubon Society"; "Audubon Society of America"; "Audubon Soc."; and "Audubon Society whose headquarters are in New York City."

This failure correctly to name the Association causes much trouble and in certain cases may lead to the Association not receiving the legacies which were designed for it. The safest method of denoting the Association would be by making the gift to the *National Association of Audubon Societies for the Protection of Wild Birds and Animals*.

There is another question of importance in connection with legacies to the Association: The Association is incorporated under the New York statute and is exempt from the New York inheritance tax. This, however, applies only to gifts made to it by residents of the State of New York. Practically all of the other States tax gifts made to charitable and educational institutions incorporated in another State.

If, therefore, it is the desire of the persons naming the Association as beneficiary under their wills to see to it that the full amount of the legacy is paid to the Association, there should be a clause in the will to the effect that inheritance and succession taxes are to be paid out of the residuary estate, as was the case in the recent legacy left the Association by Mrs. Kingsmill Marrs.

Sincerely yours,

SAMUEL T. CARTER, JR.

Letters have recently been received making inquiry as to whether the Association is in position to accept and administer tracts of land as wild life sanctuaries. The Association has full legal power to do this and one of its chief lines of effort for many years has been the encouragement of the establishment of such areas where wild birds may for all time find sanctuary. Gifts of suitable land areas with funds for adequate maintenance can,

therefore, be accepted and the donors assured that their wishes will be fully complied with. The President is glad to receive communications or talk personally with people who may be contemplating such donations or bequests; if desired he will, if possible, visit any area in question and consult with the owner as to the value of a given region as a sanctuary for wild bird life.

UNVEILING OF THE ROOSEVELT MEMORIAL BIRD FOUNTAIN

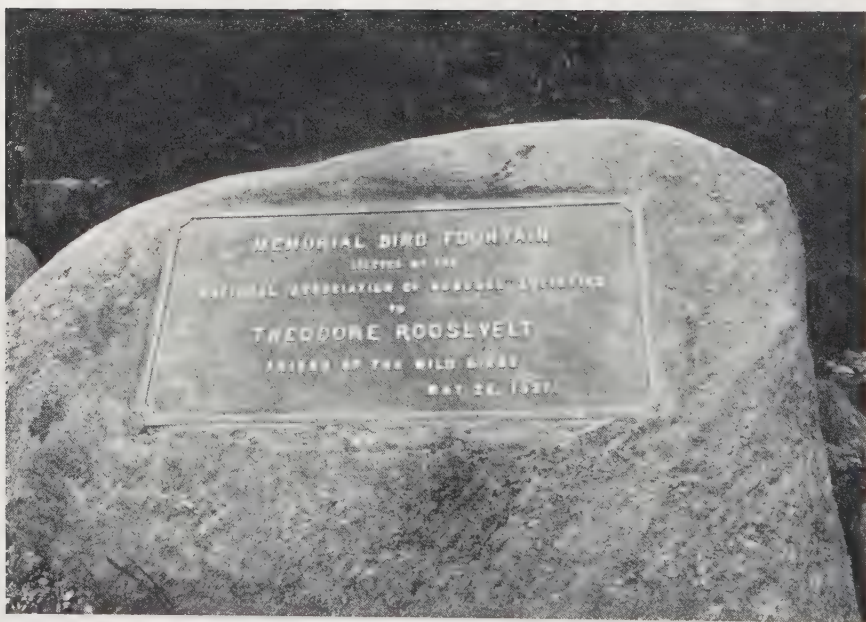
The Roosevelt Memorial Bird Fountain was unveiled at the Association's Bird Sanctuary near Oyster Bay, N. Y., on the afternoon of May 26, 1927. A heavy rain had fallen during the forenoon, but later the sun shone with great brilliancy, and to the accompaniment of the songs of Baltimore Orioles, Wood Thrushes, Catbirds and House Wrens the ceremony in honor of Theodore Roosevelt took place.

The program, as announced in the last

issue of BIRD-LORE, was carried out and the four brief addresses were well received by the audience of 250 who, by special invitation, had gathered for the occasion.

At the conclusion of the President's opening remarks he called upon Master Emlen Roosevelt, who drew from in front of the figure a large American flag that hid it from view. At this point also, Mrs. Bessie Potter Vonnoh, the sculptor, was presented.

Among those present were Mrs. Edith



BRONZE TABLET IN THE COURT OF THE FOUNTAIN

Photographed by Dr. Eugene Swope

Roosevelt and several others of the Roosevelt family. Members of the Association attended from New York, Connecticut, New Jersey, Delaware, District of Columbia, Georgia, Indiana, Iowa, and other states. Almost without exception those from a distance had journeyed to New York to be present at the unveiling.

The addresses by Doctors Pearson, Swope, Chapman, and Mr. Cherrie are here given, as well as a short account, since written, of

the manner in which various visitors have been impressed by the Fountain upon their first visit. As Dr. Swope points out in his address, the Court of the Fountain is open to visitors at all reasonable times, but the Association feels it necessary to exclude the general public from the Sanctuary; admission is to be permitted only by card. These are available at the Sanctuary or at the home office at 1974 Broadway, New York, and will be mailed to members upon request.

ADDRESS BY DR. T. GILBERT PEARSON

We are here today for the unique purpose of unveiling a memorial to a former President of the United States because he was a lover of the wild birds. In early youth he exhibited a pronounced interest in acquiring a familiarity with the appearance, habits and activities of those feathered neighbors, the very names of many species of which were unknown to the majority of his daily associates, and these studies were later continued in many climes. While occupying the position of President, at the suggestion of the Audubon Society, he created by executive order various Federal bird reservations where wild denizens of sea or land might for all time find sanctuary. He had much to do with popularizing the cause of wild life protection in North America and he made the word 'Conservation' a household term throughout our country. At the time of his death he was President of the Bird Club of Long Island that encourages grown people to protect wild birds and teaches little children to love them.

When, therefore, in the year 1919 Theodore Roosevelt passed away, it seemed to some of us most fitting that the National Association of Audubon Societies for the Protection of Wild Birds and Animals should, as a slight

testimonial, erect some tangible memorial to the great friend of the cause which we espouse. The plan has materialized in the form of a bird fountain, cast in bronze, standing here at the entrance of the Roosevelt Bird Sanctuary, which this Association owns and hopes to maintain for all time as a place consecrated to the happiness of wild birds and as an object lesson to those who would learn the practical means of attracting birds about their homes. We hope ever to keep the birds singing over the grave of Theodore Roosevelt whose great spirit looks down upon us from the brow of yon nearby hill.

The gifts of more than two thousand of our members and friends made possible the erection of this fountain, the conception of the form and the execution of which was wrought by the mind and the hands of one of America's most beloved sculptors, Bessie Potter Vonnoh. In its composition the fountain is designed to symbolize the ideal relation of children to the living birds, in the well-being of both of which Theodore Roosevelt ever held such a deep and abiding interest. In the figure the girl is seen providing water for the birds in summer, while the little boy at her feet holds a tray with which to furnish them food in winter.

ADDRESS BY DR. EUGENE SWOPE

It may not be generally known that at the time and some years prior to the time that Youngs Memorial Cemetery became a place of international pilgrimage, the land lying around the cemetery and now comprising the Bird Sanctuary was common picnic

grounds and a general dumping place. It was to prevent a possible worse misuse and consequent desecration of the cemetery that moved Mr. Emlen Roosevelt to buy this land and fence it. In 1923 he deeded this property to the National Association of



ENTRANCE TO THE ROOSEVELT BIRD SANCTUARY AT OYSTER BAY N. Y.

Audubon Societies for its present purpose. This is the condensed story of the origin of the Roosevelt Bird Sanctuary. It was not planned either by Mr. Roosevelt or by our Association—rather it was an unexpected outcome of a worthy motive.

Since January, 1924, our Association has applied scientific methods to the development of the grounds to fit them for Sanctuary purposes and has also given scientific attention to the bird population. To date, 23 different species have nested here and 121 different species have been identified and listed within the Sanctuary limits.

The development of the grounds consists in the main in replacing dead trees with living ones and in substituting bird-food-producing shrubbery for the omnipresent poison ivy, both of which are expensive operations. This work is necessarily slow, being at best but a patient coöperation with nature. Even the Court of the Fountain is planted, in so far as it has been planted, with reference to attracting birds rather than to please esthetic taste. As evidence that avian approval is given to our intentions, six nests have been built this spring in trees planted last autumn with reference to the fountain.

The idea will not down that we use some secret method of attracting birds. The question comes up again and again, "How do you get so many birds to come here?" We protect them against their two worst enemies, man and cat, by means of the good fence and eternal vigilance; we provide them with food

and water, winter and summer; we preserve our thickets where they may hide from prying eyes, and we furnish nesting-boxes for the few species that accept ready-made homes. This is our secret.

In keeping with the policy of the National Association of Audubon Societies that all its activities shall have an educational influence, we have in the past and will continue to open the gates of the Sanctuary to all sincere bird students, individuals or small groups, amateurs or professionals, and when appointments have been made, will be given such help as we can. But larger groups, especially of children and young people, will be discouraged. We have no power to enforce silence—and without silence bird-study in the open invariably fails; and besides, noisy groups, large or small, are detrimental to the welfare of the Sanctuary. In defense of the birds we are introducing a system of admission to the Sanctuary by card only, the cards to be obtained from the National Association. The gates to the Fountain will be open to the public at all reasonable hours every day.

In the Fountain you see a beautiful symbolism of the gentle, the tender side of Theodore Roosevelt's life—his brotherliness with nature. In the Sanctuary the symbolism is not apparent; rather, you see Theodore Roosevelt's advocacy of bird-protection as an active, living principle. In the Fountain you see the memorial to the man. In the Sanctuary you glimpse the immortal of the man.

ROOSEVELT THE BIRD-LOVER

By DR. FRANK M. CHAPMAN

Theodore Roosevelt was born with a bird in his heart and it sang to him throughout his life. As a boy its voice appealed to him so strongly that at one time he determined to become an ornithologist. At the age of fourteen a "Roosevelt Museum of Natural History" was established. Numerous specimens were collected, some of which, now in the American Museum, bear witness to the care with which they were prepared. Observations on the relation between color, habit, and environment in certain Egyptian birds, made at this time, show that the young

naturalist was not merely a collector, but also a student of bird-life.

A few years later (1877) came the report, with Henry Minot, on 'The Summer Birds of the Adirondacks in Franklin County' (his first publication), and this was followed by 'Notes on the Birds of Oyster Bay' (1879).

But there were other things besides the call to study birds in this young man's heart. There was the call of the historian, the call of the ranchman, of the hunter and explorer, and, above all, the call to serve his fellowman. To them all he responded so whole-heartedly



ROOSEVELT MEMORIAL BIRD FOUNTAIN
Photographed by T. Gilbert Pearson

that the breadth and diversity of his interests became the marvel of his generation; but they never crowded the bird from his heart or robbed him of his joy in its song. To those who believe in the potential value of the bird's message to man, this is one of the great lessons of Theodore Roosevelt's life.

Many men have had an inherent interest in birds, and their boyhood has been brightened by them. But with increasing attention to worldly affairs birds were forgotten. Theodore Roosevelt, however, was never too occupied with the cares of city, state, nation, or the world to lose his pleasure in the companionship of birds; and it is in this life-long appreciation of birds in nature that he gives us an expression of their greatest value to man.

As the ranchman-hunter intent on the chase, birds as well as game claimed his attention. From the plains he writes that the song of the Western Meadowlark possesses "variety, power and rich melody; and there is in it sometimes a cadence of wild sadness inexpressibly touching." There follows a tribute to the songs of birds which for pure sentiment equals anything penned by Burroughs or Jeffries. He writes of the Mockingbird's "rapture of ringing melody rising in an ecstasy of ardor and passion"; of "the serene, ethereal beauty of the Hermit's song, rising and falling through the still evening under the archways of hoary mountain forests that have endured from time everlasting"; of "the golden, leisurely chiming of the Wood Thrush, sounding on June afternoons, stanza by stanza, through sun-flecked groves of tall hickories, oaks, and chestnuts." (*The Wilderness Hunter*, Mem. Ed., p. 61.)

As Governor of this state he urged support of the Audubon Society, saying: "Spring would not be spring without bird songs any more than it would be spring without buds and flowers, and I wish that besides protecting the songsters, the birds of the grove, the orchard, the garden and meadow, we could also protect the birds of the seashore and of the wilderness." (*BIRD-LORE*, I, 1899, p. 65.)

As President this interest in bird conservation found effective and lasting expression in the establishment of the first Federal Bird

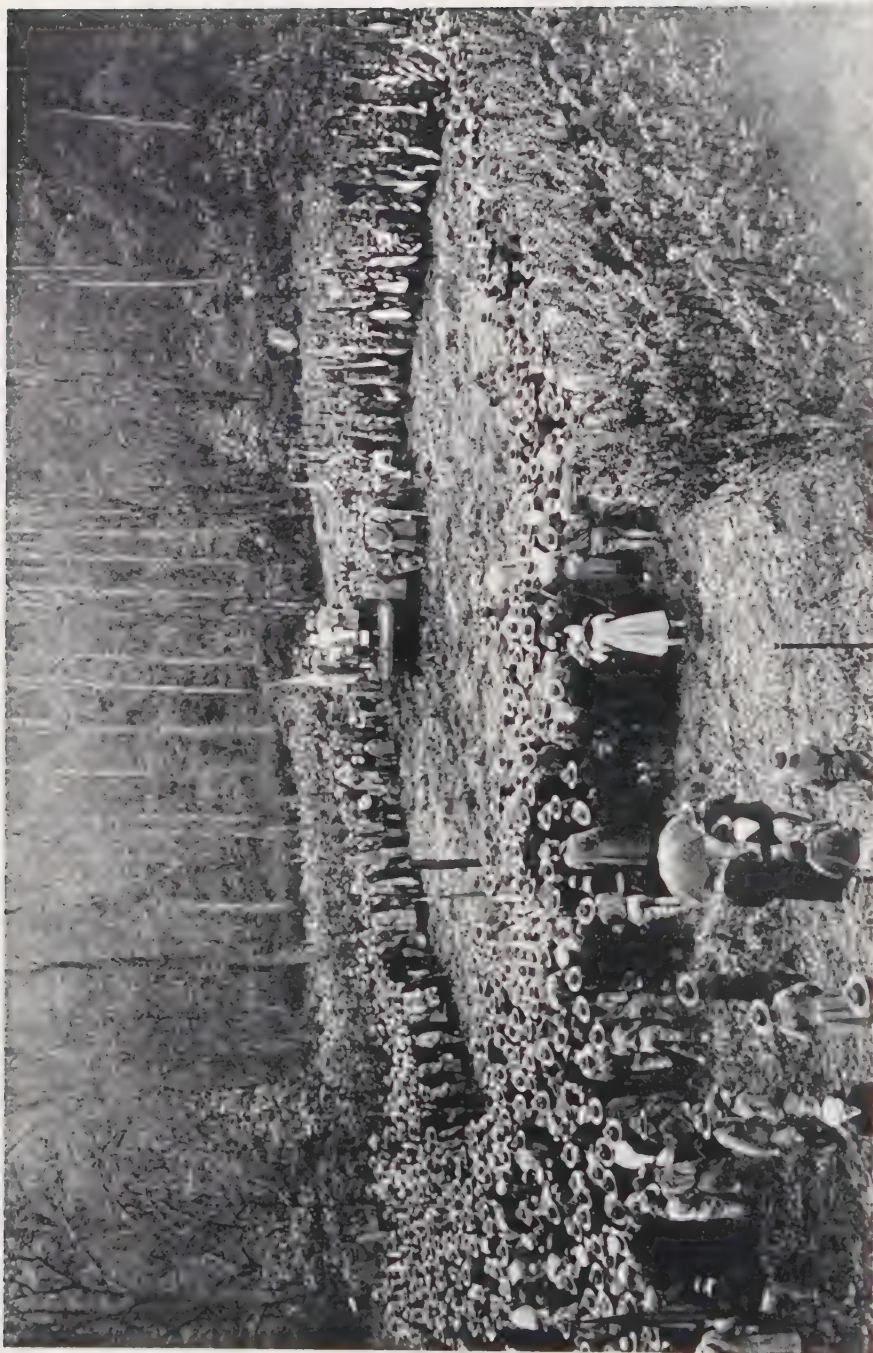
Reservation, and he is responsible for no less than fifty of the seventy-five reservations now in existence.

Even the demands of this office could not crowd the bird from his heart; doubtless, indeed, the friendship of birds was now of greater value to him than ever before. They were often the lure that drew him to the White House lawns, and a list has been published of nearly 100 species which he observed there during his terms as President. (*BIRD-LORE*, XII, 1910, p. 53.) It is related that one morning he enthusiastically greeted a waiting group of Cabinet officers with the announcement that he had made a most interesting discovery; and we may imagine their surprise when he reported just having seen an unusually rare bird in the White House grounds.

Retiring from the office of President, Mr. Roosevelt gratified a long-suppressed desire for actual zoölogical exploration by the journeys to Africa and Brazil. The volumes resulting from these expeditions abound in observations on birds and bird-life and discriminating discussions of their significance, but I shall quote only one passage showing how sentiment always held its own with science in Theodore Roosevelt's regard for birds.

Every North American bird-lover who has heard the South American White-throated Sparrow sing will appreciate his description of its song and understand the longing for home that it awakened. "It is a simple song," he writes, "with just a hint of our northern White-throat's sweet and plaintive melody, and of the opening bars of our Song Sparrow's pleasant, homely lay. It brought back dear memories of glorious April mornings on Long Island, when through the singing of Robin and Song Sparrow comes the piercing cadence of the Meadowlark; and of the far northland woods in June, fragrant with the breath of pine and balsam fir, where Sweetheart Sparrows sing from wet spruce thickets and rapid brooks rush under the drenched and swaying alder boughs."

It was on reaching England, when returning from Africa, that Theodore Roosevelt gave the most convincing evidence of his love of birds. Never before had such insistent



DANIEL BEARD AND BOY SCOUTS AT THE ROOSEVELT BIRD SANCTUARY

demands been made upon his every moment; the eyes of the world were upon him, but when his obligations had been filled, he turned from English people to English birds, and, under the guidance of Lord Grey, passed a memorable day in the field.

What event more eloquently illustrates the ideal relation of birds and man than this outing of Theodore Roosevelt and Edward Grey along the banks of the Itchen and under the beeches of the New Forest, where birds gave voice to the charm, the beauty, and the peace of an English landscape.

It seemed so desirable that Lord Grey should take part in these exercises that, in response to an invitation, he writes:

WILSFORD MANOR, SALISBURY
May 3, 1927.

DEAR DR. CHAPMAN: It was a great pleasure to get your letter telling me of the Bird Fountain to be unveiled as a memorial to Theodore Roosevelt. His love of birds, and of all wild life, was but one example of the great variety and range of his interests. To those who did not know him this might suggest that he was versatile, but versatile is not the right word. It implies something superficial. Theodore Roosevelt's interests were never superficial; they did not skim the surface, they penetrated to real knowledge; and his powerful personality made all his knowledge and interests a vivid reality.

ROOSEVELT IN THE FIELD

By GEORGE K. CHERRIE

The title of my address has been given as 'Roosevelt in the Field,' but I think that what I have in mind to say might perhaps better be expressed as 'Roosevelt as a Camp Companion.'

During the forty-odd years in which I have wandered about in far-away places, I have had companions—good, bad and indifferent. Only one, Theodore Roosevelt, stands alone in my memory as the ideal camp-mate.

And now I am going to speak of some of the camp incidents of the memorable River of Doubt Expedition, that proved all but fatal to the best camp companion I have ever had. Field work and camp activities, in his company, began with the expedition's arrival at Corumba in the heart of Brazil, 1,000 miles

He is, and always will be, rightly remembered as one who took an increasing, strenuous, and eminent part in public affairs, and as a man who could make a great country count for great things in the world. Yet somehow, he found time to observe, and become an authority on natural history. It was delightful to hear him talk of birds; anyone who had this privilege will realize that this memorial, though it recalls but a single aspect of his life, is one that is peculiarly appropriate to his memory.

Yours sincerely,
(Signed) GREY OF FALLODON

On the fifth of this month a bust of Audubon was placed in the Hall of Fame. It is proper that we should honor Audubon. His achievements as naturalist, artist and man have fairly won the recognition which has been accorded him. But the fountain which we dedicate today possesses an even greater significance than the figure that was unveiled on University Heights. Here is the tribute of bird-lovers to a fellow bird-lover. It is not rendered to the Governor of his state, the President of his country, or the outstanding citizen of his time, but to the Theodore Roosevelt who loved Song Sparrows, Blue-birds and Robins, and who found in these common tenants of our gardens, as well as in the rarer denizens of the forest, an unending source of joy and recreation.

up the Paraguay River. As we ascended that river, bordered by its vast alluvial plains, stretching to far-away horizons on every side, we marveled at the great hordes of water-fowl—countless thousands of Herons Ibises, Cormorants, Ducks, Terns—that find refuge here in this, one of nature's great sanctuaries.

Our collections were being made for the American Museum of Natural History, but, notwithstanding the seemingly inexhaustible number of birds, indiscriminate slaughter was frowned upon by the Colonel. On the one occasion during the entire expedition when I saw him really angry, it was in rebuke of the wanton killing of some three or four Cormorants from the thousands on the river ahead of our advancing boat.

I have never known any one so avid for a knowledge of nature's creatures. Day after day the Colonel would ply me with questions regarding the birds and other animals that were being collected and preserved. And he wanted to know all about them: their technical relations to one another, their geographical distribution, their food, their voices, their songs and calls and their habits, especially the last. In short, he wanted to know their life histories from A to Z.

But let us get back to camp companionship. There was no camp duty that the Colonel shirked, but stood ready and willing to do his share. And in the evenings, after all was shipshape for the night, when we gathered about the camp-fire to discuss the day's happenings, there was sure to come a lull in the talk, when each one was busy with his own thoughts. But sooner or later some one would ask for a story from the Colonel's seemingly endless store. I remember an amusing incident that occurred one evening when a story was in progress. I lay in my hammock, listening and watching the Colonel's little group that was gathered about one of the camp tables on which two or three candles sputtered. All were intent on the story, when a huge centipede crawled out on the table top! Who saw it first I don't know

because, apparently with one accord, all fell backward in their chairs, their feet overturning the table. Then what a wild scramble there was! That particular story of the Colonel's was never finished.

During the weeks of trying hardship while descending the River of Doubt, when the fates seemed all against us, the Colonel was stricken ill. But despite fever and dysentery there was never one word of complaint. He never failed, day after day, to make inquiry about his camp companions, including the canoe-men and camp helpers. And when the darkest hour came, when we reached the point on the river where it cuts its course through a narrow canyon that seemed to offer insuperable difficulties for the passing of our canoes, and where our Brazilian companions advised abandoning the canoes that every one might fight for himself through the forest, that night the Colonel, too sick, too weak to walk himself, called his son Kermit and me to his side and said, "Boys, I realize that some of us are not going to finish this journey, and I know that I am only a burden to the rest of you. Cherrie, I want you and Kermit to go on, I want you to get out, I shall stop here."

And that was the camp companion, the Theodore Roosevelt that I knew.

PUBLIC OPINION OF THE FOUNTAIN

Gleaned by DR. EUGENE SWOPE

On the first and second days following the unveiling of the Roosevelt Memorial Bird Fountain, I noted down such remarks and scraps of conversation about the Fountain and its setting as I chanced to overhear visitors make as their first impression on seeing it. A pen picture of the characters is also included as a necessary background to give this form of public opinion its full significance.

A companionless man, past middle age, of quiet demeanor and the mannerisms of an instructor, came slowly up the steps, paused to read the tablet, lingered as if pondering upon it, then moved on to a full view of the Fountain. For half a minute he looked at the Fountain figures like one in deep concentration, then gently nodded his head three

times. He next went up to the edge of the pool and looked long and longingly at the wide grassy way and the trees in the background, then reverently bent his head and lifted his hat. After turning to leave he looked back three times, and tarried long enough to reread the tablet. His actions were my only clue to his thoughts. He spoke to no one.

A vivacious man and woman stopped at the tablet; the man began reading aloud: "Memorial Bird Fountain erected by the National Association of *Audoo bon*—now what does that mean—*Audoo bon* Society? Never heard of it." Then he finished reading, but made no further comment and both hurried toward the Fountain.

At first sight of it the woman exclaimed, "How beautiful! How *perfectly* beautiful!"

"But just look at that wide strip of grass," said the man. After a pause he went on: "They tell me that the man who modeled the Fountain laid out the park too."

The woman made reply but in too low a tone to be heard by me. "But it's so," he insisted, "I've read all about it." For a moment all the honors due Mrs. Vonnoh were mine.

Then the woman had this to say: "What a charming life he must lead, here in all this beauty." And I thought of my days of battling with poison ivy.

Three women bearing all the marks of culture and wealth came in but failed to see the tablet. At first sight of the Fountain one softly exclaimed, "Isn't it beautiful?"

"Perfectly charming," murmured another.

The third, an adept in self repression, let no exclamation escape her lips but could not hide the fact that she was pleasantly surprised, for even in her softest tones some enthusiasm crept in. They discussed details—the bird, the squirrel, the toes of the sitting figure; one thought the stream of water too meager, another thought it just right. Their conversation dropped into lower tones and I missed many words but caught enough to know that one thought she saw a likeness in the features of one of the figures to a Roosevelt child. Then I heard her distinctly say, "But don't you remember Quentin who took the pony up in the White House elevator?" They departed leisurely, often turning to get another view and continued to discuss the Fountain and its setting.

Two women and a man stopped to read the tablet, each for himself; no comments were made. Silently they approached the Fountain and silently stood before it until one woman asked in a perfectly modulated voice, "What do you think of it, Harold?" Harold, of about forty years, cleared his throat, shifted his position and delivered his opinion thus: "It's a major disappointment to me—there is nothing Rooseveltian about it; this is mere child's play; besides, the proportions of the figure are bad and the setting is atrocious. The ensemble simply could not be worse."

The second woman said, "But I like the big pool and the background, Harold."

Harold turned his tolerant gaze upon her. "It simply is not done that way, Kitty."

Two women, a man and a boy of twelve with his camera, came up the steps, all talking at one time. They did not see the tablet. Coming to an abrupt halt in front of the Fountain, one woman piped up, "I'll say that's fine!"

"What a lot of water!" observed the other woman.

"Papa! Papa!" clamored the boy, "Papa, take my picture." He trampled the planting as he gained the rim of the pool where he posed as the three adults fiddled with the camera until the picture was finally snapped.

"I wonder where that road leads to?" mused the man.

"That's the sanctimony," babbled the boy.

"Sanctuary, James," his mother corrected.

The connecting thought of the ensuing conversation among them was wholly lost, but three times I distinctly heard the expression "Birds unmolested." As all turned to leave, the man looked back and said, "I'd certainly like to go up that road," meaning the main trail.

Three business men, past middle age and distinctly of the large-affairs type, those who deal in millions and think in terms of continents instead of city lots, passed the tablet without seeing it. Apparently one was the guide and host.

"Whose place is this?" asked one guest.

"Emlen Roosevelt's," the host shot back.

"That is certainly beautiful," softly observed the third man, meaning the Fountain.

"Yes," agreed the host, "Emlen bought that valley from Garver," meaning the low ground on the south side of the Sanctuary.

Then they were off but discovered the tablet and paused to read it. "Now that is well put," said the man with the soft voice.

Again was demonstrated the fact that the possession of great riches can make no basic change in the human mind. The one born with the innate capacity to appreciate simple beauty had a reward for his trouble. The other two having nothing of this treasure, which money cannot buy, brought nothing with them and took nothing away.

A young woman and a young man with a camera came, missed the tablet and stood a

moment in front of the Fountain in silence. Then he blurted, "Want me to take your picture?"

"Naw," she said.

"Come on, lemme take it," he insisted.

"If I had my bathing suit on," she snickered, "I'd go right over there by that girl and pose for you." Both laughed, turned and walked out hastily. There was nothing there for them.

Husband and wife paused at the tablet; he with deep voice read aloud, "'Friend of the Birds.' Now why *just* birds? Teddy was a friend of every living creature. I don't like that."

"But it's the Bird Society, Pa, that done this," mildly explained the wife.

"I don't care, it might have been more liberal," he grouched.

Three showily dressed women glanced at the tablet, then marched up to the Fountain as if to make a demand of it.

"Why there's no Fountain," complained one.

"It just drips all the time," observed another.

"Must be a leak somewhere," stated the third.

Thereupon they turned and marched out.

Entered a man and a woman in the late afternoon and read the tablet without comment. She had the voice and manner of an actress and was smoking a cigarette. He was short, stout, quiet, red-faced and of no distinctive type. Standing at the rim of the pool she mildly exclaimed, 'It is perfectly exquisite, Tommie; not copied from anything I ever saw, and I've seen about all that's worth looking at.'

Tommie made no response. The woman's voice was getting under way again. Tommie interrupted, "Listen, Madge! Just listen to those birds singing." Two Catbirds, a Maryland Yellow-throat, and a House Wren were keeping up, between them, a continuous song.

Madge went back away from the pool. "Come back here, Tommie; just see it against that background—you couldn't find another background like that in a hundred years." Tommie seemed deaf. "Come on Tommie," she begged.

"I want to listen to the birds," he stated crisply, and he did listen for fully two minutes more before he joined his waiting Madge. The singing birds probably revived tender memories in Tommie, and carried him back over the road of his yesterdays.

ENDOWMENT FOR RAINEY SANCTUARY

The Paul J. Rainey Wild Life Sanctuary lies in the marshes of Louisiana about 140 miles west of New Orleans. For seven and a half miles it is bounded on the south by the Gulf of Mexico and to the eastward lies Vermilion Bay. It is separated by an inlet from Marsh Island purchased some years ago as a refuge for wild birds by Mrs. Russell Sage. A few miles to the westward one comes to the eastern boundary of one of the State Wild Life Reservations, a gift of the Rockefeller Foundation.

The Rainey Sanctuary was formerly owned and held by Paul J. Rainey as a shooting preserve for himself and friends. Upon his death the writer suggested to Mr. Rainey's

sister, Mrs. Grace Rainey Rogers, that she present the marsh to the National Association of Audubon Societies with funds for its maintenance, so that it might be preserved for all time as a place of refuge for birds under the title, 'Paul J. Rainey Wild Life Sanctuary.' Acting on this suggestion, Mrs. Rogers deeded the land to this Association, and, since the gift was made in June, 1924, has contributed generously to its upkeep. On June 1, 1927, she gave an Endowment Fund, the interest from which will produce an amount equal to her former annual gift. The total sum of the Endowment Fund is \$156,786.22.

RECENT BEQUESTS

Two bequests of money have lately been received by this Association: In these columns not long ago some account was given of the life of Mrs. Kingsmill Marrs, who became a Sustaining Member of the Association in 1911 and a Life Member in 1922. For years she had served as Chairman of the Executive Committee of the State Audubon Society in Florida to which state she was accustomed to go in winter from her home in

Boston. Her bequest of \$25,000 was received in June, 1927.

From the estate of Mary Shoemaker, of Philadelphia, who died April 22, 1926, there has come the sum of \$1,000. For some years Miss Shoemaker had been a Sustaining Member of the Association and her interest in the cause of bird protection was further manifested by the provision in her will whereby the Association's resources would be strengthened.

JUNIOR AUDUBON BIRD CLUBS

The seventeenth fiscal year of the Children's Educational Department came to an end with the closing of the schools, June 1, 1927. Again the records show an increased number of clubs formed and members enrolled during the year. The total was 8,697 clubs and 355,486 members, being an increase of 603 clubs and 27,710 members over that of 1926.

Our Benefactor, who in 1922 presented the Association with an Endowment Fund for this work amounting to \$200,000, again con-

tinued the special contribution of \$10,000 which he has made annually for several years. In addition to this, the sum of \$12,612.60 given by 257 members of the Association, and \$513 interest from the Dommerich Fund combine to make a sum, which with the \$35,548.60 received from the Junior Members' fees, provided the necessary fund for carrying forward the year's work in this field of activity.

School journals of the country have been very generous in printing notices of the offer



JUNIOR AUDUBON CLUB OF ST. LADISLAV SCHOOL, CLEVELAND, OHIO
Teacher: Sister Mary Azeveda

which the Association makes for supplying material to children under our plan of organization at low rates. By this means the subject has been brought to the attention of many teachers who would not otherwise have known of the opportunity offered.

Miss Frances A. Hurd, in Connecticut, and Miss Lillian Arnold, in Florida, lectured continually in the schools as heretofore. Under our coöperative plan with the Bird Club of Long Island, Mrs. Sage visited the schools of that region in the interests of the Junior Audubon Clubs. Our arrangement with the Department of Conservation of Indiana has continued and Sydney R. Esten was kept in the field throughout the school year. The State Department of Education of South Carolina helped bear the expenses of Herbert K. Job and officially recognized our work by making him State Supervisor of Nature and Conservation Studies. Beginning

the first of March, Bertam G. Bruestle was placed as lecturer and organizer in the schools of Maryland, half his expenses being borne by the State Department of Conservation. In addition to the above, Honorable J. B. Royall, of the Florida Department of Game and Fresh Water Fish, at the expense of the State, kept Hamilton G. McGowan traveling and organizing Junior Audubon Clubs. Much assistance also was received from various organizations, especially from the State Audubon Societies of Florida, Massachusetts, Oregon, California and the St. Petersburg (Fla.) Audubon Society.

We feel justified in planning for further expansion of the Junior organization during the coming year and this can easily be accomplished if the amount of contributions from our members for this Department could be slightly increased over last year. The following statement will be of interest to many:

**Annual Summary of Junior Audubon Clubs and Members
Enrolled Under the Children's Educational Fund**

Ending June 1, 1927

States	Clubs	Members	States	Clubs	Member
Alabama	20	813	New Hampshire	25	1,060
Arizona	12	496	New Jersey	282	11,513
Arkansas	29	1,399	New Mexico	30	1,060
California	334	15,080	New York	972	44,390
Colorado	68	3,173	North Carolina	92	3,358
Connecticut	450	18,150	North Dakota	56	2,110
Delaware	9	422	Ohio	498	21,762
District of Columbia	19	635	Oklahoma	48	2,366
Florida	395	14,735	Oregon	132	5,019
Georgia	51	2,269	Pennsylvania	834	37,204
Idaho	16	610	Rhode Island	9	367
Illinois	322	13,209	South Carolina	416	15,221
Indiana	758	26,785	South Dakota	48	1,991
Iowa	187	7,149	Tennessee	20	1,159
Kansas	103	4,260	Texas	66	2,898
Kentucky	59	2,040	Utah	11	450
Louisiana	48	2,115	Vermont	24	934
Maine	22	994	Virginia	113	4,244
Maryland	204	7,356	Washington	40	1,680
Massachusetts	505	21,374	West Virginia	73	2,625
Michigan	291	13,160	Wisconsin	150	6,281
Minnesota	211	8,812	Wyoming	3	177
Mississippi	19	743	Canada	370	12,818
Missouri	111	4,308	Porto Rico	2	97
Montana	25	1,013			
Nebraska	89	3,406			
Nevada	7	178			
			Totals	8,697	355,486

THE RELATION OF THE JUNIOR AUDUBON SOCIETY TO THE BIOLOGY CLASSROOM

By ESTELLA RAPHAEL, Thomas Jefferson High School, Brooklyn, N. Y.

I decided to try something new and to vary the accustomed procedure of teaching bird study as outlined in our Biology II curriculum and adopted the following plan with interesting results.

Early in the term I spoke to the pupils in each second term class about the Audubon Societies and how they could form a Junior Audubon Club. Within a week I had almost a 100 per cent membership, and in each class a Junior Audubon Club was formed. By the time officers were elected, dues collected, and pamphlets obtained and distributed, it was time to begin bird study in the classroom. During the several weeks allotted to the topic, each class, instead of meeting formally, met as a club. Each row was transformed into a committee with a special topic on which to report on a specified day. Thus, the topics were: General structure of the bird; adaptations for flight; families of birds and their characteristics; nesting habits; economic importance; reasons for decrease in numbers of birds; bird enemies; bird protection and measures for conservation. These topics were all covered thoroughly. The rest of the class took notes on the reports made by the members of the committees, and at the end we all made a general summary in the form of an outline.

Some excellent charts of feathers and other interesting material were produced. The pamphlets and pictures were used for special study and I held the pupils responsible for the six life histories thus learned. The pupils were rather anxious to put into practice the knowledge they had learned. I suggested that they make bird houses, and offered a prize for the best.

When the time came to begin a new topic of study, the members of the clubs begged me to continue the meetings. I felt the time had been so well spent that, as a lover of birds, I was tempted to continue the good work. I decided that with careful planning of my lessons I could spare at least one Friday a month, and devote the recitation

period to a meeting of the Junior Audubon Club. I found the respective presidents rather efficient in handling the programs, most of which consisted of reports from BIRD-LORE and *Nature Magazine*, and interest did not lag.

Some of the other teachers in the department tried out the same idea in their classes. In general they were pleased with the results, although the success of the enterprise varied with the amount of effort expended by the teacher. At the end of the term the bird houses were exhibited and prizes awarded in the assembly.

The following term, being again assigned a full second term program, I followed the same plan. The clubs, if anything, were better than before, because I was guided by the experience of the preceding term. The presidents were the most enterprising young people. They managed to produce some very interesting programs, delving into such questions as the origin of birds, etc. In addition to the membership fee of ten cents, they decided to collect five cents a meeting from each member for the purpose of buying a gift for the Biology Department at the end of the term.

The last meeting was a gala affair, attended by all five clubs and visitors. The committee, composed of representatives of all the clubs, presented a well-balanced program consisting of a dialogue, bird legends, and interesting bits of bird history. The bird houses on exhibition were duly judged and the prize awarded to the maker of a seventeen-room Martin house. The houses were later sent to Prospect Park. A mounted Sparrow Hawk was presented to the chairman of the Biology Department to stimulate future interest in birds.

On the whole I was well pleased with the success of the enterprise. I felt that the pupils carried away with them a love and appreciation of nature that is my goal in teaching, but which is not often attained. But I could not help regretting that the

development was one-sided. Due to the limitations of double session in the school and the great distance to places, our field trips were very few. Although the Museum of Natural History and the Children's

Museum afforded great delight, we really could not spend sufficient time there, and did nothing at all in the open. I am biding my time until I have the chance to repeat the experiment with better facilities.

NEWS AND NOTES

Visitors

Among the recent visitors at 1974 Broadway was Dr. Seinosuke Uchida, of Tokyo, Japan. He is ornithologist to his Government's Department of Animal Industry, Ministry of Agriculture and Forestry, and a member of the Japanese section of the International Committee for Bird Protection. Bird protection is a subject which much interests him and he left with us copies of a recent bulletin, of which he is author, entitled "The Present Condition of the Protection of Birds and Mammals in Japan."

Among other visitors have been W. S. Hart, of Montreal, a member of the Canadian Section of the International Committee for Bird Protection, also Mrs. Richard Hardy, until recently president of the Humane Society of Chattanooga, Tenn., and Mrs. Bessie Potter Vonnoh, the well-known sculptor.

Bird Protection in Italy

A recent letter from Leonard Hawksley, of Rome, Italy, who for many years has been a leading spirit in the cause of bird and animal protection in that country, tells much of the activities of the Rome Society for the Protection of Animals.

A recent illness has caused him to sever his connection with this Society, which now confines its efforts to the city of Rome. However, the branch societies in other parts of Italy, together with the inspectors, have been handed over to Mr. Hawksley and he has recently succeeded in reviving the Branch of Assisi, where St. Francis preached to the birds, but which is now the center of the bird-blinding industry. Since last December, Mr. Hawksley states, 173 blinded birds have been confiscated in and around Assisi. This is a sad commentary on an attitude and temper of mind which is easily

tolerant of such inhumane and abominable practices. Verily it is enough to make the beloved St. Francis turn in his grave.

New Bird Refuge Created

President Coolidge, by a recent Executive Order, has set aside a tract of land consisting of about 2,350 acres in Jasper County, S. C., for a wild life reservation. The area embraces certain abandoned rice lands belonging to the Government and abutting on the Savannah River, near Savannah, Georgia, and is known as the Savannah River Bird Refuge.

The new reservation is under the administration of the Bureau of Biological Survey and represents another link in the chain of bird refuges and sanctuaries that will play an ever-increasing part in helping to save the wild life of our country.

Activities in Alabama

It is pleasant to note that there has recently been organized in Birmingham-Southern College a College Audubon Society with 120 charter members. As a result of the interest thus aroused, the college campus, consisting of 100 acres, has been declared as a bird sanctuary and Birmingham-Southern will provide bird houses and baths for the entire wooded tract, making a sanctuary in the very heart of Birmingham's industrial district.

Dr. W. A. Whiting, head of the Department of Biology, is faculty advisor of the Audubon Society. The College will also offer courses in ornithology next year.

Nature Protection in Germany

Herr Walter von Kendell, the new German Minister of the Interior, in spite of the many duties entailed by his office, still finds time to

pursue his long-time hobby of nature protection. He has set aside buildings and grounds on his estate at Bellinghen, near Berlin, to help determine how best to conserve his country's natural beauties with its wild animal and bird-life. It is the first German research station for this purpose.

Geologists, botanists, and zoölogists will take up the work in this institute, which will be outfitted with a complete library and all necessary instruments. The entire plant will be directed by Dr. Klose, "Nature-protection Commissary" of the province of Bradenburg.

Oregon Audubon Society Active

Among the affiliated organizations that recently have shown unusual activity is the Oregon Audubon Society. Under the leadership of the president, Willard Ayres Eliot, special efforts have been put forth along educational lines, and an active campaign has also been inaugurated for the purpose of forming local bird clubs and Audubon Societies. With this in view a state organizer has been employed and many new clubs have been formed. As part of the educational program, a training class for teachers in bird-study has been maintained and in addition ten sets of the complete series of Educational Leaflets, published by the National Association have been procured. The leaflets have been bound and the color plates mounted on cardboard for the purpose of opaque projection. Additional matter is also included with this material which is made up in sets and packed in a convenient form for transportation. It is then loaned for a period of six months or more to any club desiring to make use of the opportunity thus afforded to secure helps for bird-study.

Dr. Welty

Dr. Emma J. Welty, for many years Corresponding Secretary of the Oregon Audubon Society, died at her home in Portland,

Oregon, May 2, 1927. She was born in Gettysburg, Pa., March 19, 1856, and graduated from the Boston University School of Medicine with the class of 1880. Dr. Welty came to Portland in 1886. Until about a year ago she was active in the practice of her profession. She has always been interested in humane and conservation matters. In 1899 she helped organize the John Burroughs' Society, which was later merged into the Oregon Audubon Society. She was also associated with others in the founding of the Oregon Humane Society, and was a member of its Board of Directors for many years.

A Call to Bird Lovers

A letter has recently come from the Alexandria, Arlington and Mt. Vernon Audubon Association asking the help of various clubs and organizations in their work of providing nesting-boxes, bird-baths, feeding-stations and suet baskets for the birds found in the National Cemetery at Arlington, Va.

The War Department, through Secretary Weeks, has given its consent to make this cemetery more attractive for wild birds, and quite a number of boxes for Bluebirds, Wrens, Titmice, Chickadees and Woodpeckers have already been placed and are occupied. However, many more boxes and other devices mentioned above are needed. The trees of the Cemetery are being carefully cared for by 'tree surgeons', and hole-nesting species will leave without special provision.

All boxes and other helps may be sent direct to Robert Dye, Superintendent, Arlington Cemetery, Fort Myer, Virginia, and will be placed by a committee.

Those of our members and friends wishing in any way to assist in these very laudable efforts may communicate with Fannie M. Burke, 208 Wilkes Street, Alexandria, Va.

NEW SUSTAINING MEMBERS

Fee, \$5 Annually

Enrolled from May 1, 1927, to July 1, 1927

Backhouse, Mrs. Wm. G.	Hensel, George W., Jr.	Munter, W. H.
Bancroft, Mrs. Alvah H.	Hitchcock, Otto G.	Newhall, Mrs. D. A.
Bostwick, R. G.	Holding, Mrs. Caroline	Nicoll, Mrs. Benjamin
Boswell, Miss Frances W.	Holobird, Miss Alice B.	Openhym, Wilfred A.
Bowers, Miss Ethel Boyd	Hopkins, W. R.	Otto, Mrs. Carl L.
Brandon, Frank	Hoverter, Sherman H.	Pearce, James W.
Brehmer, R. L.	Howe, Miss Clara Mildred	Pease, Benj. F.
Brown, H. R.	Hoyt, I. F.	Peskind, Mrs. Arnold
Bryant, C. L.	Humel, A. F.	Peter, Miss Elizabeth
Bunnell, Mrs. Nellie M.	Ibold, Peter M.	Pfeiffer, M.
Burck, Miss Virginia R.	Jensen, J. P.	Plummer, William
Carr, Mrs. S. H.	Johnson, M. Earle	Poste, J. Robinson
Carter, Warren	Johnston, Miss Mary E.	Printz, Miss Mira Steele
Chanler, Mrs. Winthrop	Jones, Miss Helen F.	Reifsnider, Miss Bertha
Coney, W. W.	Jones, Jas. C.	Risk, James K.
Conway, H. C.	Jorns, Clifford E.	Ritchie, James
Crocker, John	Joyce, W. B.	Robinson, Mrs. C. Gilpin
Dake, William Ward	Kessler, Mrs. W. H.	Rockwell, Stuart W.
Davidson, Chas. A.	Kirkpatrick, Mrs. N. W.	Sauer, Wm. F.
Dean, Arthur W.	Knapp, Frank A.	Scarborough, Miss Alice
Dinkelaker, John	Koenigkramer, Fred	Scherz, John
Downer, S. W.	Lauer, Edward	Schlegel, Robert A.
Eich, Wendel	Leovy, F. A.	Scott, Ross R.
Farber, A. J.	Levering, Mrs. C. A.	Smith, Mrs. Samuel W., Jr.
Farkell, George C.	Lihme, I. P.	Stevenson, Mrs. Alan C.
Ferguson, Mrs. Charles H.	Lincoln, Mrs. J. Ledyard	Taylor, W. J. R.
Fertig, Geo. E.	Lippincott, Miss Mary W.	Teachout, Mrs. Wm. C.
Foster, W. H.	Livingood, Mrs. William W.	Thaw, Benjamin
Francke, L. J.	Locuson, Miss Grace	Topp, Mrs. Hulda A.
Fraser, A. Duncan	Luther, Charles W.	Towell, Mrs. T. H.
Frechtling, Arthur G.	McCurdy, Dr. H. R.	Upham, Mrs. R. D.
Garden Club of Queens Village (N. Y.)	McGarvey, W. T.	vanDyke, F. A.
Gardner, Richard F.	McNutt, James	vanWagnener, J. B.
Garry, A. H.	Macleod, Walter	Wallace, Mrs. John C.
Gram, H. C.	Madeira, Percy C., Jr.	Walsh, Miss Katie E.
Grandin, Mrs. G. W.	Marchant, William	Walton, Lewis B., Jr.
Gunckel, Mrs. Ella Lowe	Martin, J. W.	Williams, Aras J.
Haehnle, Chris	Mattern, Mrs. C. J.	Wood, Miss G. A.
Hake, E. W.	Meade, Mrs. George Gordon	Woodward, Geo. S.
Hardenbrook, Mrs. E. R.	Meads, C. O.	Worthington, Reginald S.
Hayden, Joel B.	Miller, Edward B.	Wright, Mrs. James N.
Hayes, Stanley Wolcott	Mitchell, Mrs. S. R.	Yocum, George L.
Helling, Mrs. E. Folsom	Moran, Frank T.	
	Muhlhauser, Mrs. Henry, Jr.	

NEW LIFE MEMBERS

Fee, \$100 for Endowment Fund

Enrolled from May 1, 1927, to July 1, 1927

Clark, F. Ambrose	Pope, Gustavus D.
Elston, Miss Annie E.	Ring, Clark L.
Flick, R. Jay	Sales, Mrs. Murray W.
Ford, Mrs. Clara J.	Simes, William (In Memoriam)
Graves, Henry B.	Spies, Frank A.
Handley, Tom S.	Stearns, Mrs. E. R.
Hull, Mrs. A. G.	Stuart, E. Elmer
Jipson, Mrs. Cora A.	Wade, Mrs. G. G.
Merriman, Miss Helen A. P.	Washburn, Mrs. Edward A.

